United States Department of Agriculture

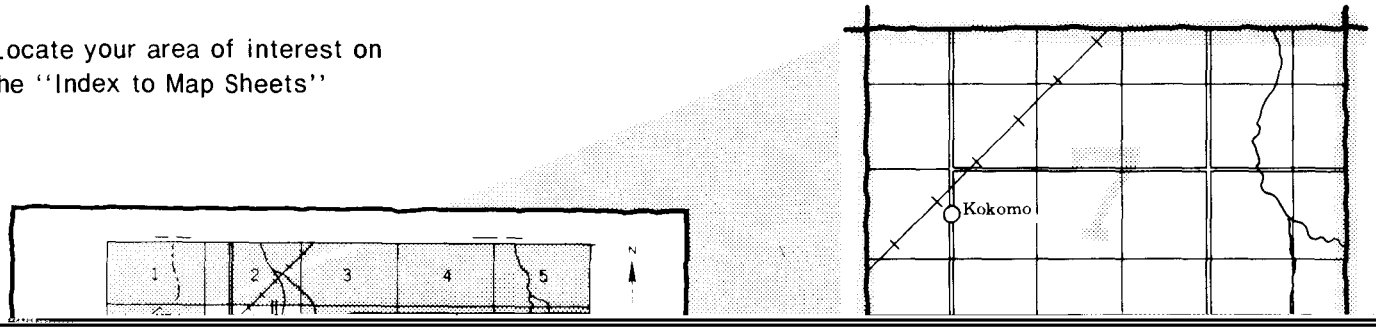
Soil Conservation Service

In cooperation with Louisiana Agricultural Experiment Station and the Louisiana State Soil and Water Conservation Committee

Soil Survey of St. Landry Parish, Louisiana

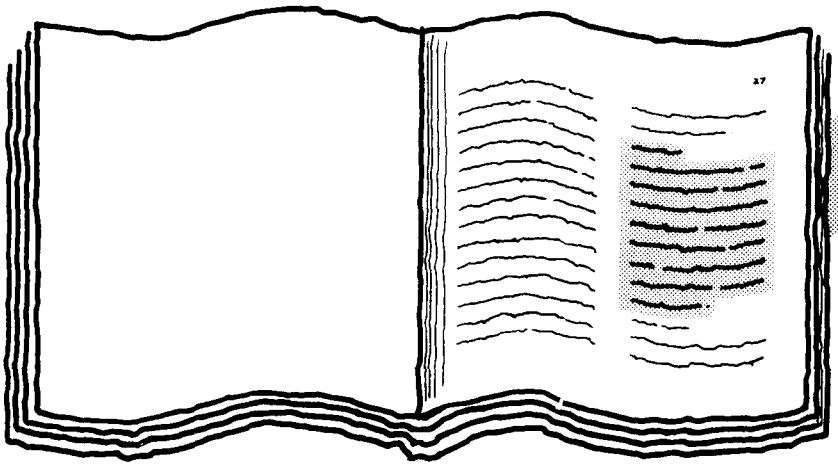
HOW TO USE

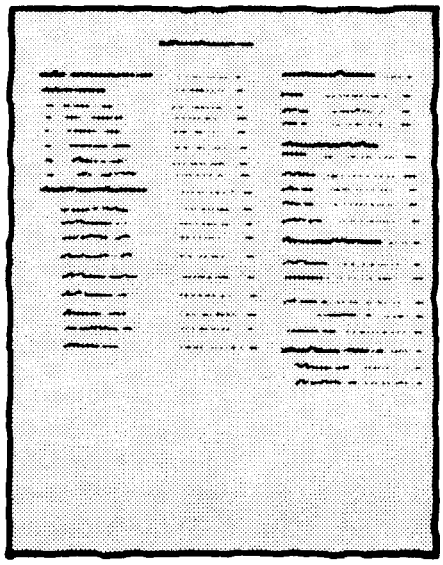
1. Locate your area of interest on the ''Index to Map Sheets''



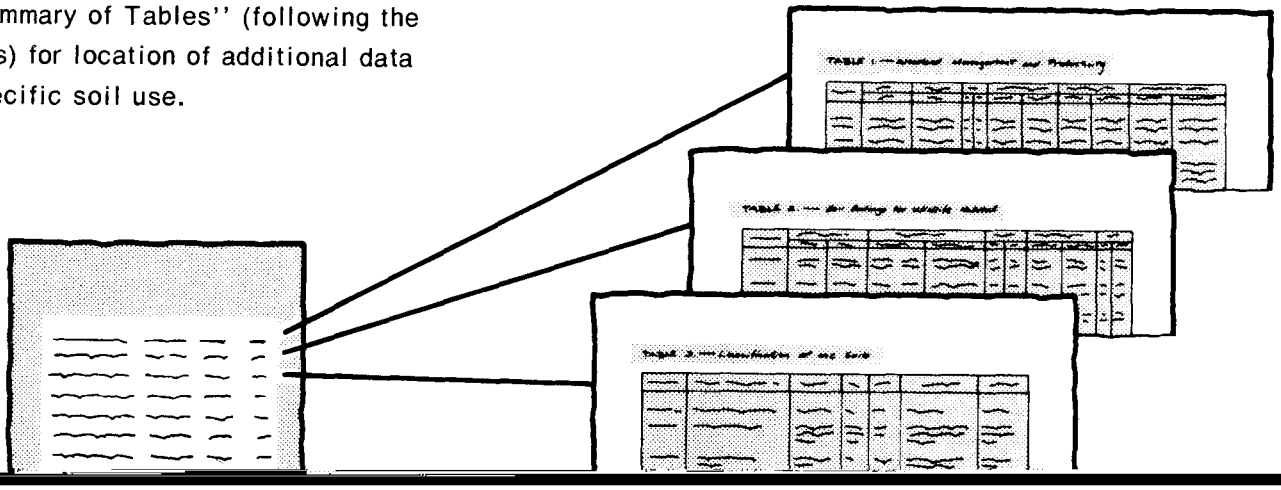
THIS SOIL SURVEY

5. Turn to "Index to Soil Map Units" which lists the name of each map unit and the page where that map unit is described.





6. See "Summary of Tables" (following the Contents) for location of additional data on a specific soil use.



This soil survey is a publication of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other federal agencies, state agencies including the Agricultural Experiment Stations, and local agencies. The Soil Conservation Service has leadership for the federal part of the National Cooperative Soil Survey. In line with Department of Agriculture policies, benefits of this program are available to all, regardless of race, color, national origin, sex, religion, marital status, or age.

Major fieldwork for this soil survey was completed in 1982. Soil names and descriptions were approved in 1983. Unless otherwise indicated, statements in this publication refer to conditions in the survey area in 1983. This soil survey was made cooperatively by the Soil Conservation Service and the Louisiana Agricultural Experiment Station and the Louisiana State Soil and Water Conservation Committee. It is part of the technical assistance furnished to the St. Landry Soil and Water Conservation District.

Soil maps in this survey may be copied without permission. Enlargement of these maps, however, could cause misunderstanding of the detail of mapping. If enlarged, maps do not show the small areas of contrasting soils that could have been shown at a larger scale.

Cover: Plantation home on Loring silt loam, 1 to 5 percent slopes.

Contents

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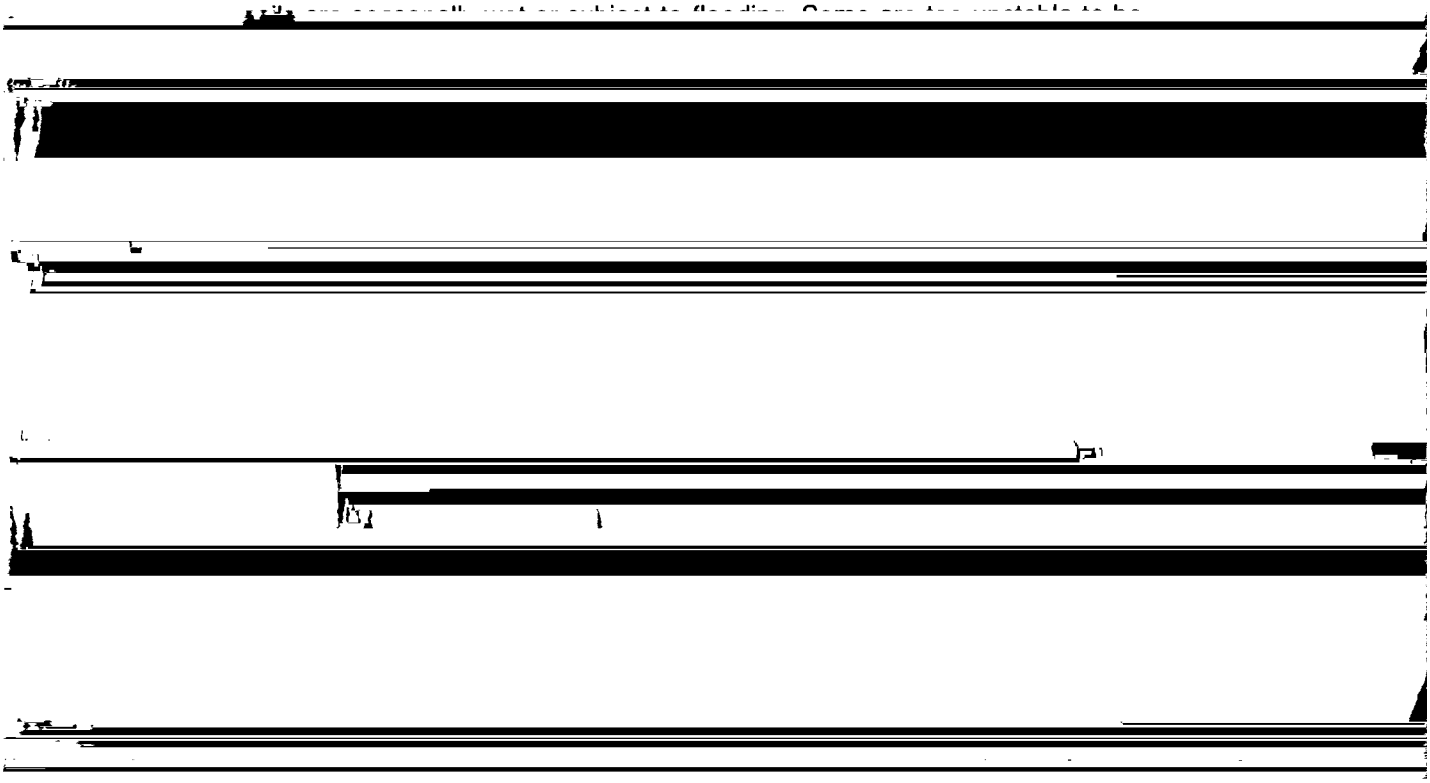
Summary of Tables

Foreword

This soil survey contains information that can be used in land-planning programs in St. Landry Parish. It contains predictions of soil behavior for selected land uses. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

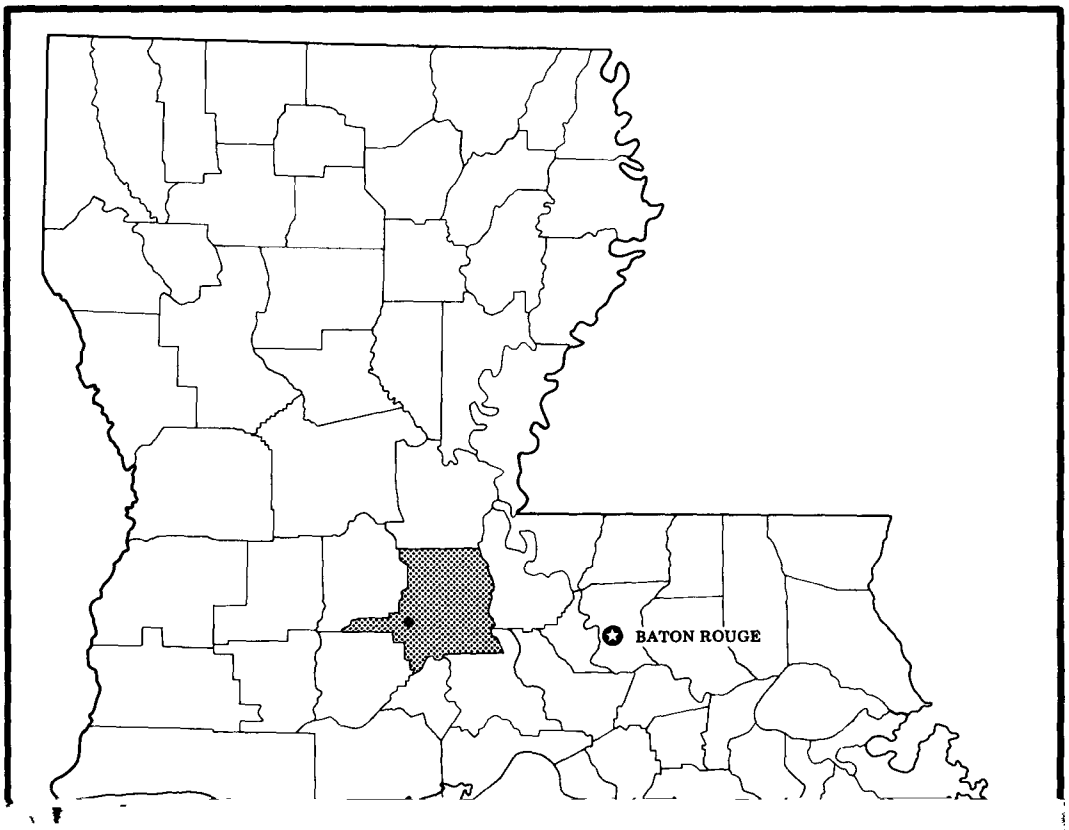
This soil survey is designed for many different users. Farmers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to insure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Great differences in soil properties can occur within short distances. Some



used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in


BATON ROUGE

Soil Survey of St. Landry Parish, Louisiana

By Kenneth E. Murphy, J. Kilren Vidrine, and Donald R. McDaniel, Soil Conservation Service, and Curtis L. Godfrey, Louisiana State Soil and Water Conservation Committee

United States Department of Agriculture, Soil Conservation Service
In cooperation with Louisiana Agricultural Experiment Station and
Louisiana State Soil and Water Conservation Committee

ST. LANDRY PARISH is in the south-central part of Louisiana. It is bordered on the east by the Atchafalaya River, on the west by Evangeline Parish, on the north by

lower parts of natural levees and in back swamps. The soils are medium to high in natural fertility. Most of the acreage of these soils is used for cultivated crops and

degrees F). The normal monthly accumulation is used to schedule single or successive plantings of a crop between the last freeze in spring and the first freeze in fall.

The total annual precipitation is 53-56 inches. Of this, 27 inches, or 50 percent, usually falls in April through September. The growing season for most crops falls

Agriculture

St. Landry Parish has always been an agricultural parish. The early settlers grew a variety of crops and raised livestock. For a short period, indigo was the main cash crop. By the early 1800's, cotton was the main crop. Cotton acreage was about 20,000 acres in 1969; however, cotton was not planted in 1978, and only 80

Most of the flooding in the parish is caused by overflow from large streams and from drainage canals that are used as flood relief channels. Flooding from heavy local storms is minor. Some flooding by backwater also occurs when water levels are high in the Atchafalaya River.

Flood control in the eastern part of the parish is provided by the Atchafalaya River levee system and the West Atchafalaya Floodway levee system (fig. 1). Several privately constructed levee systems also protect thousands of acres of agricultural land in areas that are not protected by the major levees. Many of the privately owned levee systems provide inadequate protection from flooding. Over 90,000 acres of land within the parish are either unprotected or inadequately protected.

About 155,000 acres in the parish are in the West Atchafalaya Floodway. This area is west of the Atchafalaya River and extends north to south across the eastern part of the parish. The floodway is about 8 miles in width and is enclosed by large, earthen levees. The floodway is part of a complex flood control system operated by the U.S. Army Corps of Engineers. This system diverts excess water from the Mississippi River when it is at a critical flood stage. A "fuse-plug" is at the northern end of the floodway between Hamburg and Simmesport in neighboring Avoyelles Parish. This plug is designed to erode away when waters behind it reach a predetermined critical level and permit the waters to flow over the levee. The fuse plug levee and the levees on either side of the floodway protect most of it from floodwaters during typical backwater flood stages and from headwater flooding by the Atchafalaya River. The West Atchafalaya Floodway has never been used; however, the federal government owns floodway flow rights or easements. The perpetual flowage easements provide for full use of the lands for flood control purposes, which includes the authority to release floodwaters into the floodway. Landowners retain the

Figure 1.—The West Atchafalaya Basin Floodway protection levee helps to provide flood control in the eastern part of St. Landry Parish.

right to farm, improve, and inhabit the land and to harvest timber and minerals.

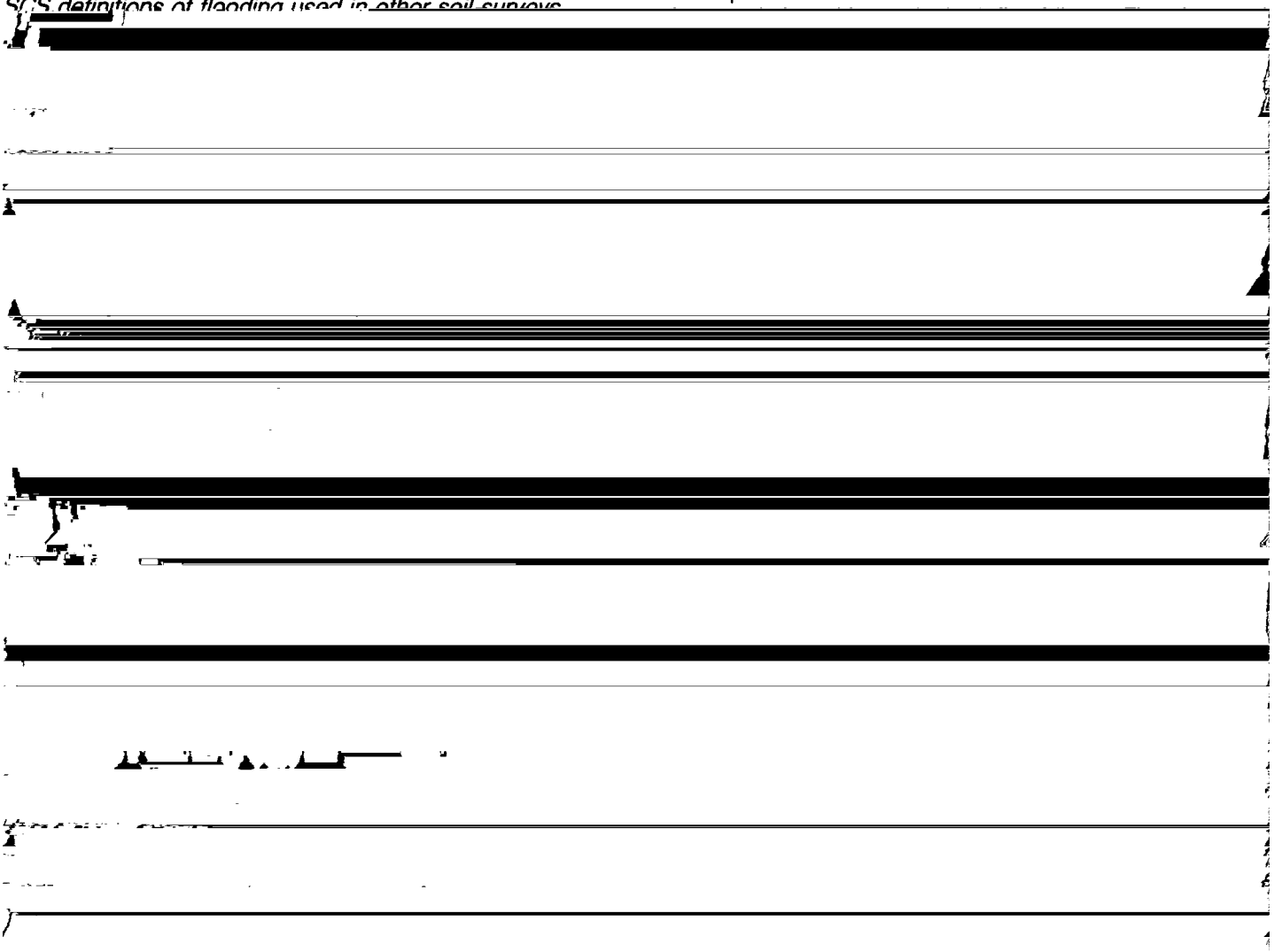
This soil survey can be used to locate the areas that are subject to flooding. The areas are delineated on the maps, and the frequency and season of flooding are given in the description of each map unit. Soil map units that generally are flooded more than 2 years out of 5 (41 or more years in each 100 years) between June 1 and November 30 are *frequently flooded*. Those map units that generally are flooded up to 2 years out of 5 (11 to 40 years in each 100 years) between June 1 and November 30 are *occasionally flooded*. Many soils on bottom lands that are not adequately protected are *rarely flooded*; that is, flooding is unlikely but possible under abnormal conditions. *Rarely flooded* soils generally are flooded from 1 to 10 years in 100 years between June 1 and November 30. Soils that are not subject to flooding or that are adequately protected from flooding by levees or pump-off systems are *nonflooded*.

These definitions of flooding differ from the National SCS definitions of flooding used in other soil surveys

the soil scientist to predict with considerable accuracy the kind of soil at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, acidity, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil



always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Map Unit Composition

A map unit delineation on a soil map represents an area dominated by one major kind of soil or an area dominated by several kinds of soil. A map unit is identified and named according to the taxonomic classification of the dominant soil or soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural objects. In common with other natural objects, they have a characteristic variability in their properties. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of soils of other taxonomic classes. Consequently, every map unit is made up of the soil or soils for which it is named and some soils that belong to other taxonomic classes. In the detailed soil map units, these latter soils are called inclusions or included soils. In the general soil map units, they are called soils of minor extent.

Most inclusions have properties and behavioral patterns similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting (similar) inclusions. They may or may not be mentioned in the map unit descriptions. Other inclusions, however, have properties and behavior divergent enough to affect use or require different management. These are contrasting (dissimilar) inclusions. They generally occupy small areas and cannot be shown separately on the soil maps because of the scale used in mapping. The inclusions of contrasting soils are mentioned in the map unit descriptions. A few inclusions may not have been observed, and consequently are not mentioned in the descriptions, especially where the soil pattern was so complex that it was impractical to make enough observations to identify all of the kinds of soils on the landscape.

The presence of inclusions in a map unit in no way diminishes the usefulness or accuracy of the soil data. The objective of soil mapping is not to delineate pure taxonomic classes of soils but rather to separate the landscape into segments that have similar use and management requirements. The delineation of such landscape segments on the map provides sufficient information for the development of resource plans, but onsite investigation is needed to plan for intensive uses in small areas.

General Soil Map Units

The general soil map at the back of this publication shows broad areas that have a distinctive pattern of soils, relief, and drainage. Each map unit on the general soil map is a unique natural landscape. Typically, a map unit consists of one or more major soils and some minor soils. It is named for the major soils. The soils making up one unit can occur in other units but in a different

concepts, differences in map unit design, and changes in soil patterns near survey area boundaries.

Areas on Flood Plains; Dominated by Level to Gently Undulating, Loamy Soils

This group of map units consists of well drained,

uses. The soils in this map unit have few limitations for cultivated crops and pasture.

The soils in this map unit are well suited to the production of southern hardwoods. They are well suited for use as habitat for woodland and openland wildlife.

The soils in this map unit are well suited to use as

The soils are well suited to the production of southern hardwoods, although wetness moderately limits the use of equipment. They have good potential for use as habitat for woodland and openland wildlife.

The soils in this map unit are poorly suited to use as

cultivated crops and pasture, and those subject to frequent flooding are poorly suited to these uses.

Most of the soils in this map unit are well suited to the production of southern hardwoods. They have good potential for use as habitat for woodland and openland wildlife

Areas on Flood Plains; Dominated by Level, Clayey Soils

This group of map units consists of poorly drained and very poorly drained soils that are clayey throughout.

The three map units in this group make up about 35

main limitations. Surface drainage and flood control are needed for urban and recreation uses.

6. Sharkey

Level, poorly drained soils that are clayey throughout; formed in Mississippi River alluvium

This map unit consists of clayey soils in low positions on natural levees on the alluvial plain of the Mississippi River. The landscape is mainly broad flats and concave swales that have slopes of less than 1 percent. In three areas in the northeastern part of the parish, it is low, parallel ridges and swales that have slopes of 0 to 3 percent. A large part of this map unit is within the West Atchafalaya Basin Floodway, and the soils are subject to rare flooding under unusual conditions. Some of the lower lying areas of these soils flood more often during periods of prolonged and intense rainfall.

This map unit makes up about 16 percent of the parish. It is about 87 percent Sharkey soils and 13 percent soils of minor extent.

The Sharkey soils have a surface layer of very dark grayish brown or dark grayish brown clay and a subsoil of mottled, dark gray, olive gray, and gray clay. The underlying material is mottled, gray clay.

Of minor extent in this map unit are the somewhat poorly drained Tensas soils; the poorly drained Baldwin soils on low ridges and intermediate positions; the poorly drained Iberia soils in shallow, depressional areas; and the very poorly drained Fausse soils in deep, depressional areas. The Tensas soils are mainly in three large areas in the northeastern part of the parish and make up about 6 percent of the map unit.

Most of the soils in this map unit are used as woodland. A few large areas of these soils are used for cultivated crops. Soybeans and rice are the main crops. Woodland areas are used for wildlife habitat and timber production. Several small areas of these soils are used as pasture.

The soils in this map unit generally are moderately well suited to cultivated crops and well suited to pasture. The soils subject to occasional or frequent flooding are less well suited to use for cultivated crops and pasture. Wetness and poor tilth are the main limitations. A surface drainage system is needed. The choice of crops and pasture plants is limited in areas of soils that are not protected from flooding.

Most of the soils in this map unit are well suited to woodland. The soils subject to frequent flooding are main limitations. Drainage and flood control are needed where areas are developed for urban uses.

7. Sharkey-Fausse

Level, poorly drained and very poorly drained soils that are clayey throughout; formed in Mississippi River alluvium

This map unit consists of soils in the lowest positions on natural levees and in back swamps on the Mississippi River alluvial plain. The landscape is broad flats that have many depressional areas. The soils in this map unit are subject to frequent flooding. Slopes are 0 to 1 percent.

This map unit makes up about 8 percent of the parish. It is about 63 percent Sharkey soils, 34 percent Fausse soils, and 3 percent soils of minor extent.

The Sharkey soils are on broad flats and are poorly drained. They have a surface layer of dark grayish brown clay and a subsoil of gray and dark gray, mottled clay. The underlying material is mottled, gray clay.

The Fausse soils are in depressional areas and are very poorly drained. They have a surface layer of dark grayish brown, mottled clay. The subsoil and underlying material are dark gray and gray, mottled clay.

Of minor extent in this map unit are the somewhat poorly drained, loamy Commerce and Convent soils in high positions.

The soils in this map unit remain in use as woodland. They are used for timber production or wildlife habitat.

The Sharkey soils in this map unit are moderately well suited to woodland, and the Fausse soils are poorly suited. The dominant trees in the map unit are baldcypress, water hickory, green ash, overcup oak, drummond maple, and black willow. The hazard of flooding and the high water table severely restrict the use of equipment during the harvesting of timber. The soils in this map unit have good potential for use as habitat for wetland wildlife, fair potential as habitat for woodland wildlife, and poor potential as habitat for openland wildlife. Fishing and hunting are popular activities in the area.

The soils in this map unit are not suited to cultivated crops, to urban uses, or to use as intensive recreation areas. Flooding and wetness are too severe for these uses.

These soils are poorly suited to pasture. The choices of pasture plants and period of grazing are severely limited because of wetness and frequent flooding.

cultivated crops. Susceptibility to erosion and wetness are the main limitations for most uses of these soils.

8. Memphis

Level to moderately steep, well drained soils that are loamy throughout; formed in loess

This map unit consists of soils on the highest elevations on the terrace uplands. The landscape in most areas is one of long, smooth slopes on interstream divides. In other areas, it is an escarpment that has complex short slopes and deeply incised drainageways. Slopes range from 0 to 20 percent.

This map unit makes up about 4 percent of the parish. It is about 94 percent Memphis soils and 6 percent soils of minor extent.

The Memphis soils have a surface layer of brown or dark grayish brown silt loam. The subsoil is dark brown silty clay loam and silt loam. The underlying material is dark yellowish brown or dark brown silt loam.

Of minor extent in this map unit are the moderately well drained Loring soils, the somewhat poorly drained Coteau soils on side slopes and nearly level ridgetops, and the poorly drained Frost soils along narrow drainageways.

The soils in this map unit are used mainly for cultivated crops. Soybeans is the main crop. Many small to large areas of these soils are used as pasture and urban development. Many of the steeper areas of these soils are used as woodland.

The soils in this map unit are well suited to cultivated crops and pasture. Slope and the hazard of erosion are limitations. Soil losses can be minimized by using minimum tillage, contour farming, and grassed waterways.

The soils in this map unit are well suited to woodland. The potential production of slash pine and loblolly pine is very high. These soils have good potential for use as habitat for woodland and openland wildlife.

The soils in this map unit are well suited to urban and recreation uses. Moderately steep slopes in some areas are a limitation.

9. Coteau-Frost-Loring

Level to moderately sloping, somewhat poorly drained, poorly drained, and moderately well drained soils that are loamy throughout; formed in loess

This map unit consists of soils on high elevations on the terrace uplands. The landscape in most areas is long, smooth slopes on broad ridgetops and flats. In other areas, it is a complex of narrow ridgetops and [illegible]

The Coteau soils are on broad ridgetops and narrow side slopes. These soils are somewhat poorly drained and are level to very gently sloping. They have a surface layer of brown silt loam. The subsoil is dark brown silty clay loam in the upper part and mottled dark brown, dark yellowish brown, and light brownish gray silty clay loam and silt loam in the lower part.

The Frost soils are on flats and in swales and drainageways. These soils are poorly drained and are level. They have a surface layer of dark grayish brown silt loam. The subsurface layer is dark gray, gray, and grayish brown, mottled silt loam. The subsoil is dark gray and light brownish gray, mottled silty clay loam.

The Loring soils are on ridgetops, side slopes, and narrow escarpments. These soils are moderately well drained and are gently sloping or moderately sloping. They have a surface layer of brown silt loam. The subsoil is dark yellowish brown and dark brown silt loam and silty clay loam. The lower part of the subsoil is a fragipan.

Of minor extent in this map unit are the poorly drained Calhoun soils on broad flats; the somewhat poorly drained Patoutville soils on low, broad ridges; the moderately well drained Muskogee soils on narrow, eroded escarpments; and the well drained Memphis soils on narrow ridgetops.

Most of the soils in this map unit are used for cultivated crops. Soybeans and sweet potatoes are the main crops. A small acreage is in pasture or in urban and built-up areas.

The soils in this map unit are well suited to cultivated crops and pasture. Wetness in the level areas and erosion in sloping areas are the main concerns. A surface drainage system is needed for crops and pasture.

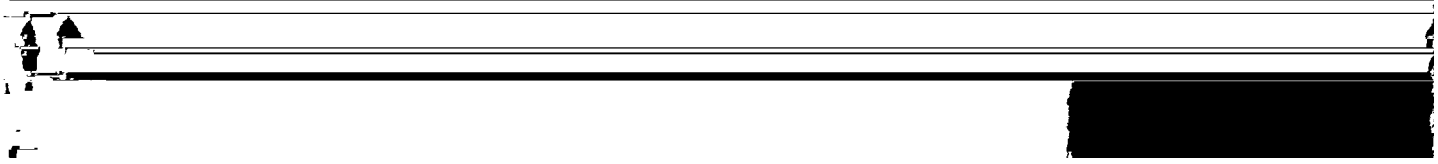
The soils in this map unit are well suited to woodland. The potential production of loblolly pine and slash pine is high or very high. The soils have fair to good potential for use as habitat for woodland and openland wildlife.

The soils in this map unit are moderately well suited to recreational and urban uses. Wetness and moderately slow and slow permeability are the main limitations.

Some areas of the Frost soils are occasionally flooded and are poorly suited to crops and to urban and recreational uses. These areas are moderately well suited to pasture and woodland.

Areas on Terrace Uplands; Dominated by Level to Very Gently Sloping Soils

This group of map units consists of somewhat poorly [illegible]



pasture, or urban and built-up areas. Woodland areas are commonly small and scattered. Wetness is the main limitation for most uses.

10. Patoutville-Frost

Level to very gently sloping, somewhat poorly drained and poorly drained soils that are loamy throughout

This map unit makes up about 8 percent of the parish. It is about 40 percent Jeanerette soils, 38 percent Patoutville soils, and 22 percent soils of minor extent.

The Jeanerette soils are on broad flats and in depressional areas. These soils are level and are somewhat poorly drained. They have a surface layer of very dark grayish brown silt loam. The subsoil is black

parts and light brownish gray, mottled silt loam in the lower part. The upper part of the subsoil contains moderately high concentrations of sodium salts.

The Coteau soils are on knolls and higher lying ridges. These soils are level to very gently sloping. They have a surface layer of brown silt loam. The subsoil is dark brown silty clay loam in the upper part and mottled dark brown, dark yellowish brown, and light brownish gray silty clay loam and silt loam in the lower part.

Of minor extent in this map unit are the poorly drained Frost soils along drainageways, the poorly drained Baldwin soils along some of the drainageways at lower elevations, and the Patoutville soils on some of the knolls.

The soils in this map unit are used mainly for cultivated crops. Soybeans is the main crop. A few small areas of these soils are used as pasture or for urban structures.

The soils in this map unit are moderately well suited to cultivated crops and well suited to pasture. Wetness in both the Frozard and Coteau soils and the moderately high concentrations of sodium in the upper part of the subsoil of the Frozard soils are the main limitations. A surface drainage system is needed for cultivated crops.

The soils in this map unit are well suited to woodland. They have good potential for use as habitat for woodland and openland wildlife.

The soils in this map unit are moderately well suited to intensive recreation uses and poorly suited to urban uses. Wetness and slow and moderately slow permeability are the main limitations; however, these limitations can be overcome by good design and careful installation.

13. Crowley-Mowata

Level, somewhat poorly drained and poorly drained soils that have a loamy surface layer and a clayey and loamy subsoil; formed in old alluvium

This map unit consists of soils on smooth, low ridges

brownish gray silty clay and silty clay loam. The underlying material is light olive gray, mottled silty clay loam.

Of minor extent in this map unit are the somewhat poorly drained Mamou soils on side slopes and the poorly drained Calhoun and Frost soils on broad flats.

The soils in this map unit are used mainly for cultivated crops. Rice and soybeans are the main crops. A small acreage is in pasture or in urban and built-up areas.

The soils in this map unit are well suited to cultivated crops and pasture. Wetness is the main limitation. A surface drainage system is needed for crops and pasture plants.

The soils in this map unit are well suited to woodland. The potential production of loblolly pine and slash pine is high. These soils have fair potential for use as habitat for woodland and openland wildlife and good potential for use as habitat for wetland wildlife.

The soils in this map unit are poorly suited to intensive recreation and urban uses. Wetness and very slow permeability are the main limitations; however, these limitations can be overcome by good design and careful installation.

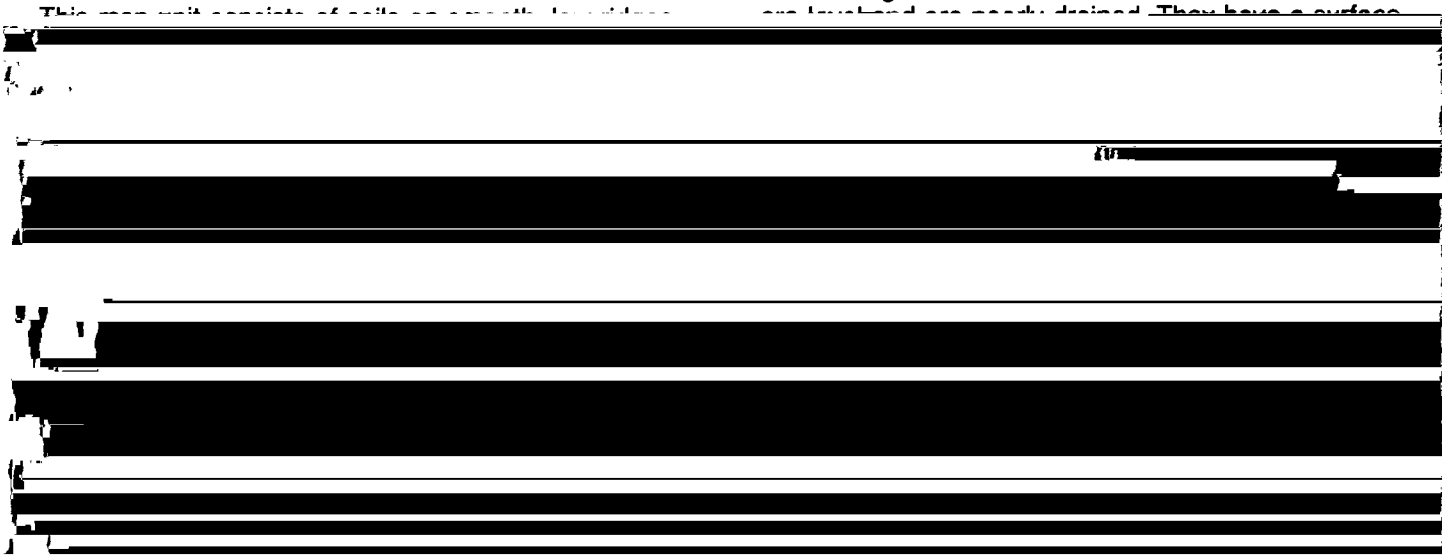
14. Wrightsville-Vidrine

Level and very gently sloping, poorly drained and somewhat poorly drained soils that have a loamy surface layer and a clayey and loamy subsoil; formed in old alluvium

This map unit consists of soils on broad flats and low, circular mounds on the terrace uplands. Slopes range from 0 to 3 percent.

This map unit makes up about 1 percent of the parish. It is about 70 percent Wrightsville soils, 20 percent Vidrine soils, and 10 percent soils of minor extent.

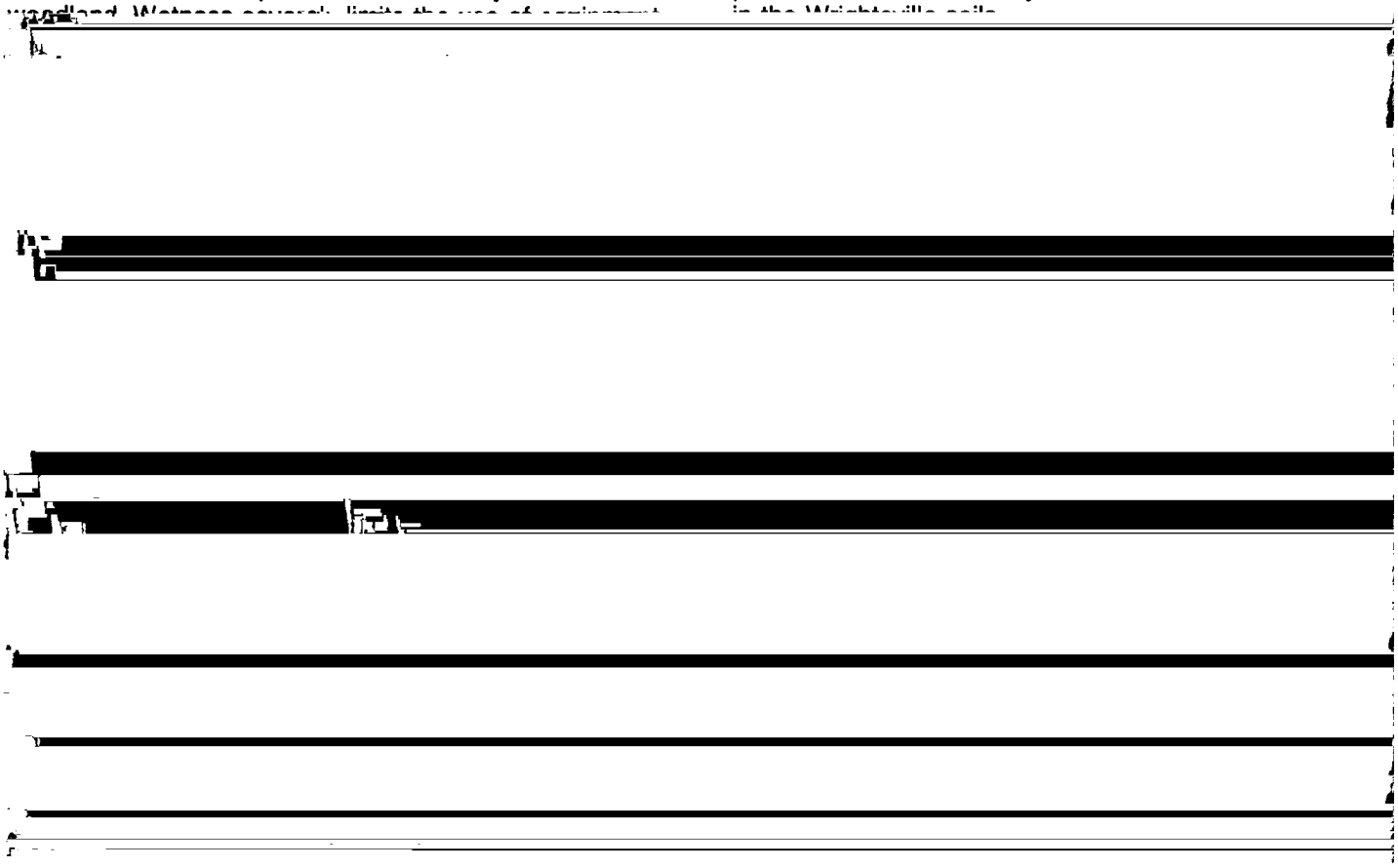
The Wrightsville soils are on broad flats. These soils



The soils in this map unit are moderately well suited to cultivated crops and pasture. Wetness is the main limitation. A surface drainage system is needed for crops and pasture plants.

The soils in this map unit are moderately well suited to [redacted]

in map units 12 and 14 are on terrace uplands. These soils have medium or low fertility. Wetness is the major limitation to growing crops. Excess sodium salts in the subsoil is an additional limitation in the Frozard soils. The potential aluminum toxicity in the root zone is a limitation [redacted]



These soils have fair potential for use as habitat for woodland and openland wildlife.

The soils in this map unit are poorly suited to intensive recreation and urban uses. Wetness and very slow

About 8 percent of the total land area in the parish is in pasture. All of the soils in the parish, except those in map units 4, 7, 12, and 14, are well suited to pasture. Soils in map units 12 and 14 are moderately well suited

Detailed Soil Map Units

The map units on the detailed soil maps at the back of this survey represent the soils in the survey area. The map unit descriptions in this section, along with the soil maps, can be used to determine the suitability and potential of a soil for specific uses. They also can be used to plan the management needed for those uses. More information on each map unit, or soil, is given under "Use and Management of the Soils."

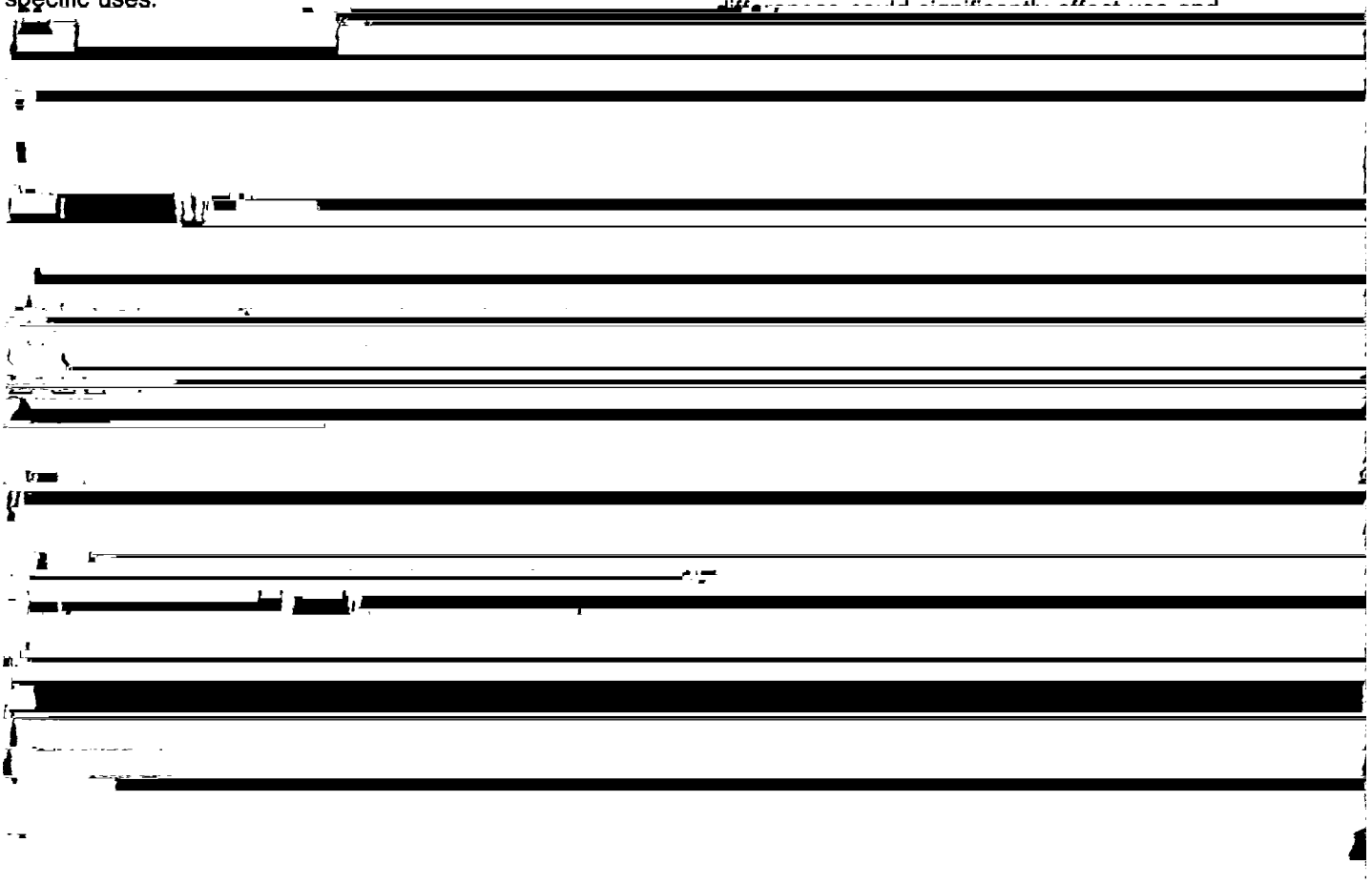
Each map unit on the detailed soil maps represents an area on the landscape and consists of one or more soils for which the unit is named.

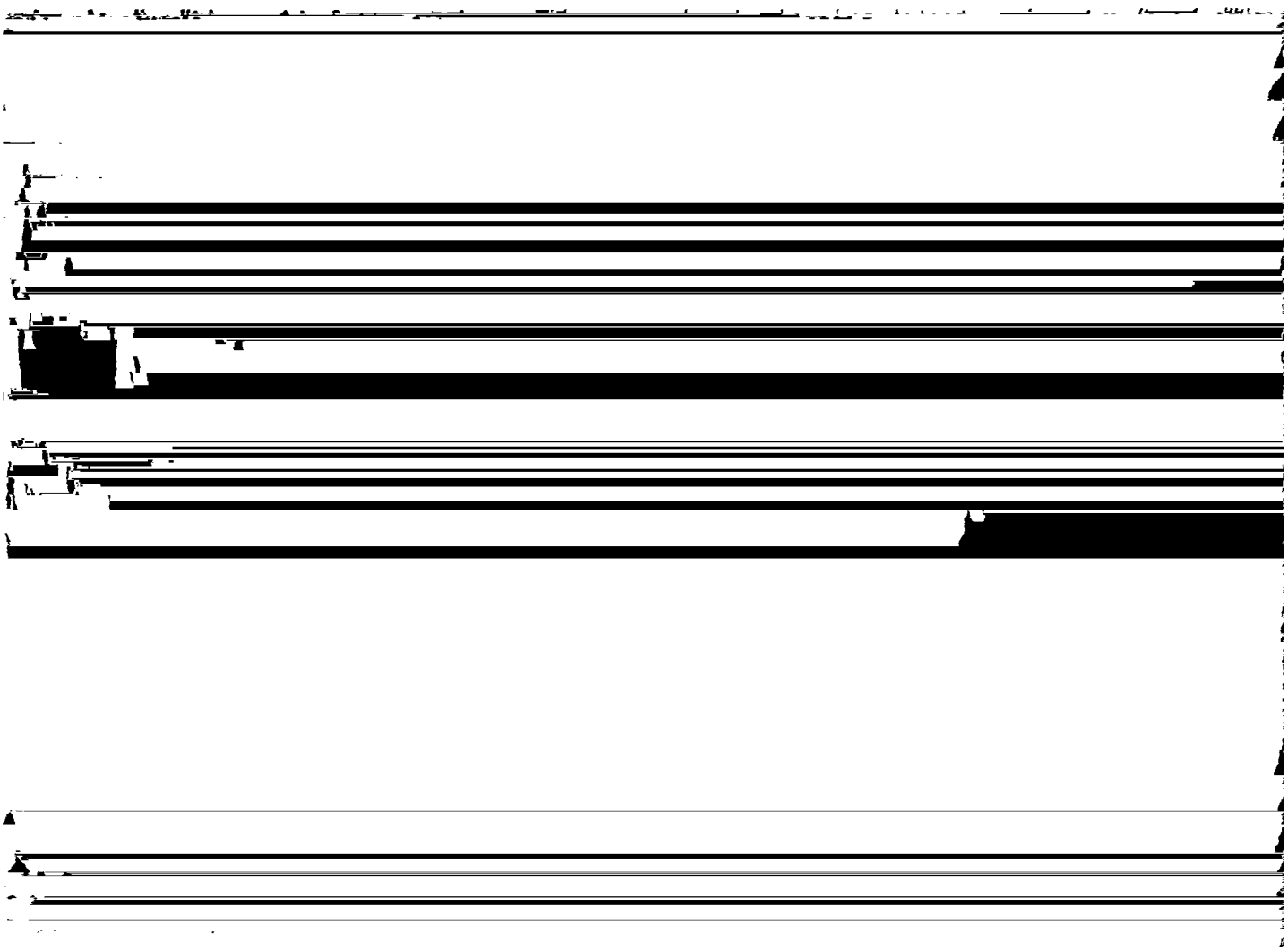
A symbol identifying the soil precedes the map unit name in the soil descriptions. Each description includes general facts about the soil and gives the principal hazards and limitations to be considered in planning for specific uses.

Muskogee-Loring association, 8 to 20 percent slopes, severely eroded, is an example.

An *undifferentiated group* is made up of two or more soils that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils in a mapped area are not uniform. An area can be made up of only one of the major soils, or it can be made up of all of them. Basile and Wrightsville soils, frequently flooded, is an undifferentiated group in this survey area.

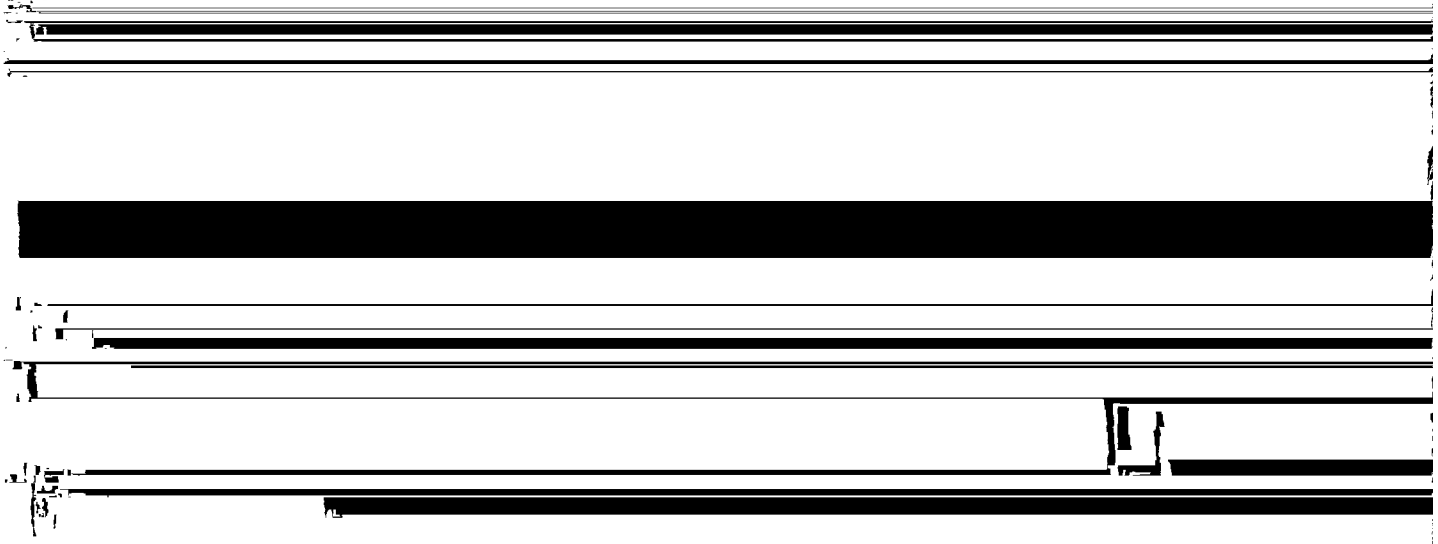
Most map units include small scattered areas of soils other than those for which the map unit is named. Some of these included soils have properties that differ substantially from those of the major soil or soils. Such





very gently sloping, somewhat poorly drained soil is on

Drainage is needed if roads and building foundations are

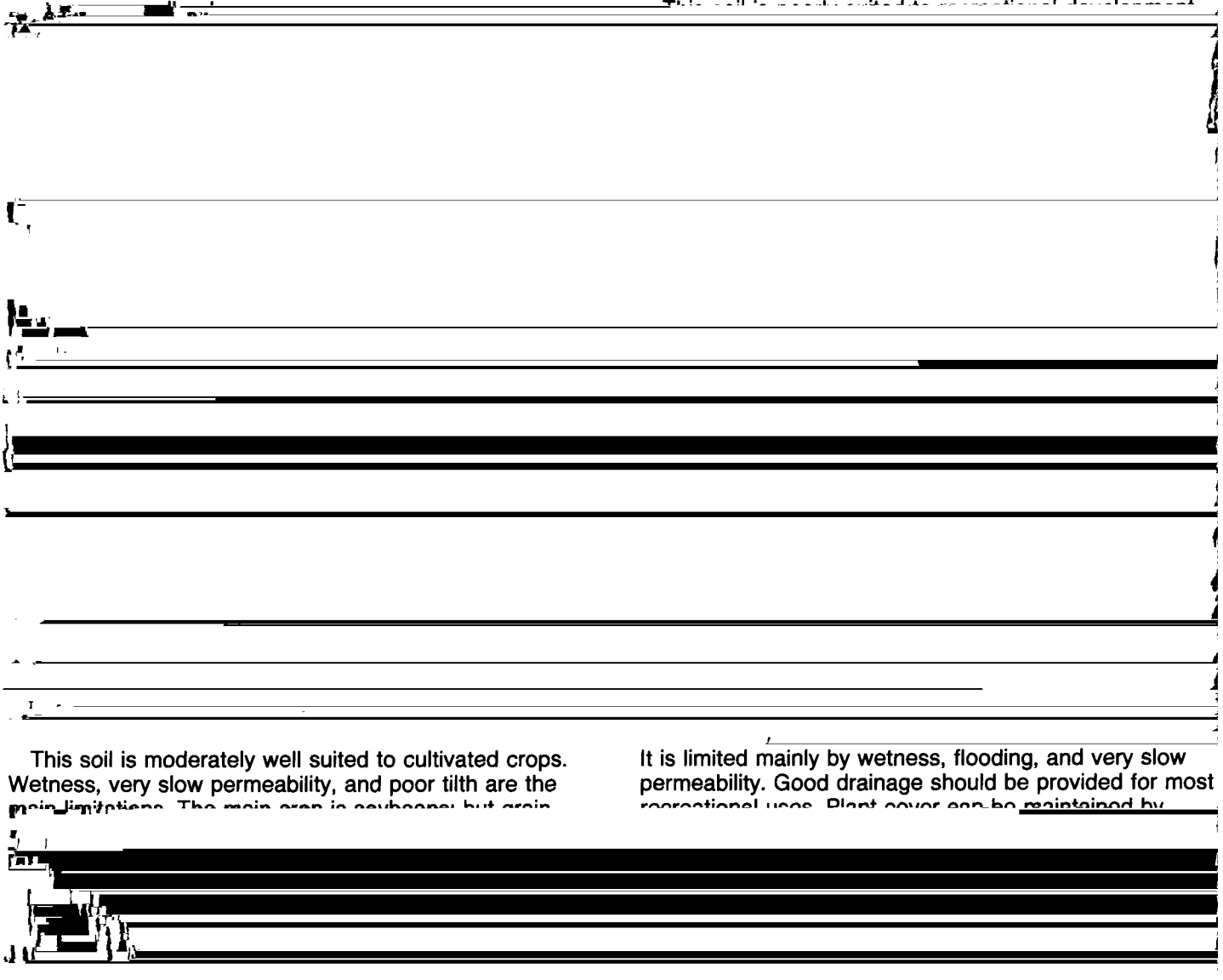


and are clayey throughout. The included soils make up about 10 percent of the map unit.

This Baldwin soil has high fertility. Water runs off the surface slowly. The surface layer of this soil remains wet for long periods after heavy rains. Water and air move through this soil very slowly. A seasonal high water table fluctuates between a depth of about 2 feet and the soil surface during December through April. This soil has very high shrink-swell potential. An adequate supply of water is available to plants in most years. Flooding is rare on an annual basis and rare during the cropping season. Flooding can occur, however, during periods of unusually prolonged and intense rainfall.

This soil is used mainly for cropland. It is also used as

swell potential. Drainage is needed if roads and building foundations are constructed. Excess water can be removed by shallow ditches and proper grading. Septic tank absorption fields do not function properly during rainy periods because of wetness and very slow permeability. Lagoons or self-contained sewage disposal units can be used to dispose of sewage properly. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. Drainage is needed for best results with most lawn grasses, shade trees, ornamental trees, shrubs, vines, and vegetable gardens. Roads and streets should be designed to offset the limited ability of the soil to support a load.



This soil is moderately well suited to cultivated crops. Wetness, very slow permeability, and poor tilth are the

It is limited mainly by wetness, flooding, and very slow permeability. Good drainage should be provided for most

on an annual basis and rare during the cropping season. Flooding can occur, however, during periods of unusually prolonged and intense rainfall. This soil has very high shrink-swell potential. An adequate supply of water is available to plants in most years.

Typically, the Sharkey soil has a surface layer of very dark grayish brown clay about 6 inches thick. The subsoil is dark gray, mottled, medium acid clay in the upper part; gray, mottled, slightly acid clay in the middle

rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Excessive water in the swales can be removed by field ditches. Fertilizer and lime are needed for optimum growth of grasses and legumes.

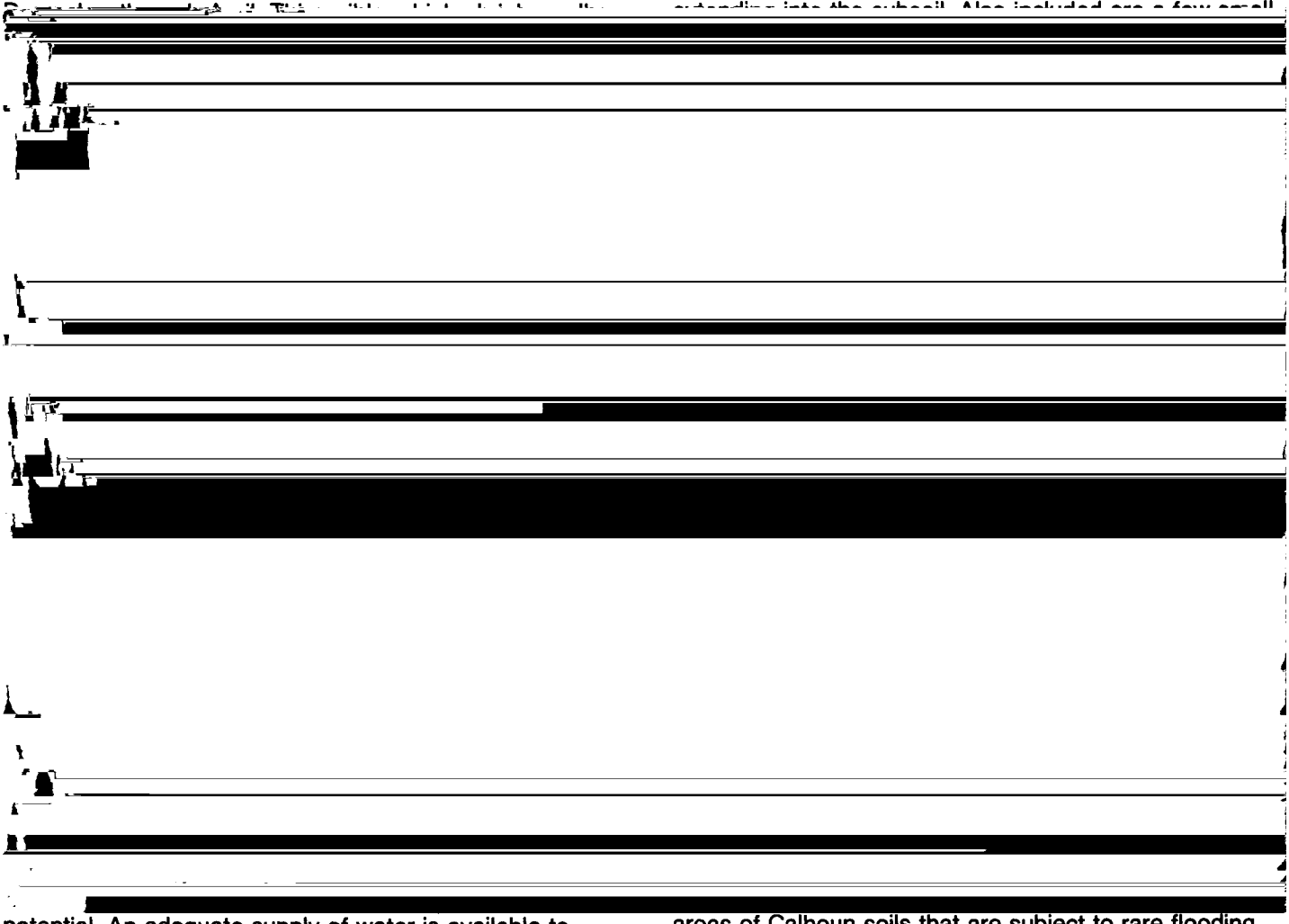
These soils are well suited to woodland; however, only a few areas remain in native hardwoods. The potential production of eastern cottonwood, sweetgum, and American sycamore is high. The main concerns in

Figure 2.—Unless adequate drainage is provided, water ponds for long periods after rainstorms on the Sharkey soil in areas of the Baldwin-Sharkey complex, gently undulating.

not separated in mapping. Most mapped areas are made up of both soils, but the proportion of each soil varies from place to place. Slopes are less than 1 percent.

This Basile soil has low fertility. Water runs off the surface very slowly. Water and air move through this soil slowly. A seasonal high water table fluctuates between a

This Wrightsville soil has low fertility. Water runs off the surface slowly. Water and air move through this soil very slowly. A perched seasonal high water table is between a depth of about 1/2 foot and 1 1/2 feet during



potential. An adequate supply of water is available to plants in most years.

Included with these soils in mapping are a few small areas of Acadia soils. The somewhat poorly drained Acadia soils are on side slopes along drainageways. The included soils make up about 5 percent of the map unit.

Most of the acreage of the Basile and Wrightsville soils is in woodland. A small acreage is in pasture.

These soils are moderately well suited to woodland. The potential production of sweetgum is moderate. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and the hazard of flooding. Only trees that can tolerate seasonal wetness should be planted. Conventional methods of harvesting timber generally can be used, but their use may be limited during rainy periods, generally from December through May.

Included with this soil in mapping are a few small areas of Coteau and Patoutville soils. The somewhat poorly drained Coteau and Patoutville soils are on low ridges and do not have tongues of the subsurface layer

areas of Calhoun soils that are subject to rare flooding. The included soils make up about 10 percent of the map unit.

This Calhoun soil has medium fertility. Water runs off the surface slowly and stands in low places for long periods after heavy rains. Water and air move through this soil slowly. A seasonal high water table fluctuates between a depth of about 2 feet and the soil surface during December through April. Plants are damaged by lack of water during dry periods in summer and fall of some years. The surface layer remains wet for long periods after heavy rains. This soil has moderate shrink-swell potential.

Most of the acreage of this soil is used for cultivated crops. A small acreage is used as woodland, pasture, or for homesites.

This soil is moderately well suited to cultivated crops. It is limited mainly by wetness in the spring and

water on the surface can be removed by field ditches and suitable outlets. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is poorly suited to urban development. Wetness and slow permeability are the main limitations. Drainage is needed if roads and building foundations are constructed. Drainage is needed for best results with most lawn grasses, shade trees, ornamental trees, shrubs, vines, and vegetable gardens. Excess water can be removed by shallow ditches and proper grading. Septic tank absorption fields do not function properly during rainy periods because of wetness and slow permeability. Lagoons or self-contained sewage disposal units can be used to dispose of sewage properly. Mulching, fertilizing, and irrigating help to establish lawn grasses and other small-seeded plants. Roads and streets should be designed to offset the limited ability of the soil to support a load.

This soil is poorly suited to recreational uses. It is limited mainly by wetness. Good drainage should be provided for most recreational uses. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for ducks, doves, squirrels, quail, rabbits, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Calhoun soil is in capability subclass IIIw and in woodland group 2w.

Cd—Commerce silt loam. This level, somewhat poorly drained soil is in intermediate positions on the natural levees of the Atchafalaya River. Large earthen levees protect this soil from flooding by overflow from the Atchafalaya River. Slopes are less than 1 percent.

Typically, the surface layer is dark grayish brown, mildly alkaline silt loam about 8 inches thick. The subsoil is grayish brown, mottled, mildly alkaline silty clay loam. The underlying material to a depth of about 60 inches is stratified grayish brown, mottled, moderately alkaline silty clay loam and silt loam. In places, the surface layer is silty clay loam.

Included with this soil in mapping are a few small areas of Convent and Sharkey soils. The Convent soils are in slightly higher positions than the Commerce soil and contain less clay in the underlying material. The poorly drained Sharkey soils are in depressional areas

This Commerce soil has high fertility. Water runs off the surface slowly. Water and air move through this soil at a moderately slow rate. A seasonal high water table fluctuates between a depth of about 1-1/2 to 4 feet below the surface during December through April. Although large earthen levees protect this soil from flooding by overflow from the Atchafalaya River, most areas of the soil remain subject to rare flooding from other sources on an annual basis and during the cropping season. A few urban areas are adequately protected from all flooding by major flood control structures. This soil has moderate shrink-swell potential. An adequate supply of water is available to plants in most years.

Most of the acreage of this soil is used for cultivated crops and pasture. A small acreage is used for homesites.

This soil is well suited to cultivated crops. It is limited mainly by wetness. Soybeans is the main crop; but corn, grain sorghum, cotton, and vegetables are also suitable crops. The Commerce soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Land grading and smoothing improve surface drainage and permit more efficient use of farm equipment. Plowpans develop easily but can be broken up by deep plowing or chiseling. Maintaining crop residue on or near the surface reduces runoff and helps to maintain soil tilth and organic matter content. Most crops respond well to nitrogen fertilizers. Lime is generally not needed.

This Commerce soil is well suited to pasture (fig. 3). The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, white clover, and tall fescue. Proper stocking, pasture rotation, and restricted grazing during wet periods help to keep the pasture and the soil in good condition. Nitrogen fertilizer is needed where grasses are grown alone. Lime is generally not needed.

This soil is well suited to the production of eastern cottonwood and American sycamore. Potential timber production is very high in areas managed for woodland. This soil has few limitations for woodland use and management. Conventional methods of harvesting timber generally are suitable, but the soil may be compacted if it is wet and heavy equipment is used. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is poorly suited to urban uses. The main limitations are wetness and flooding. Drainage is needed

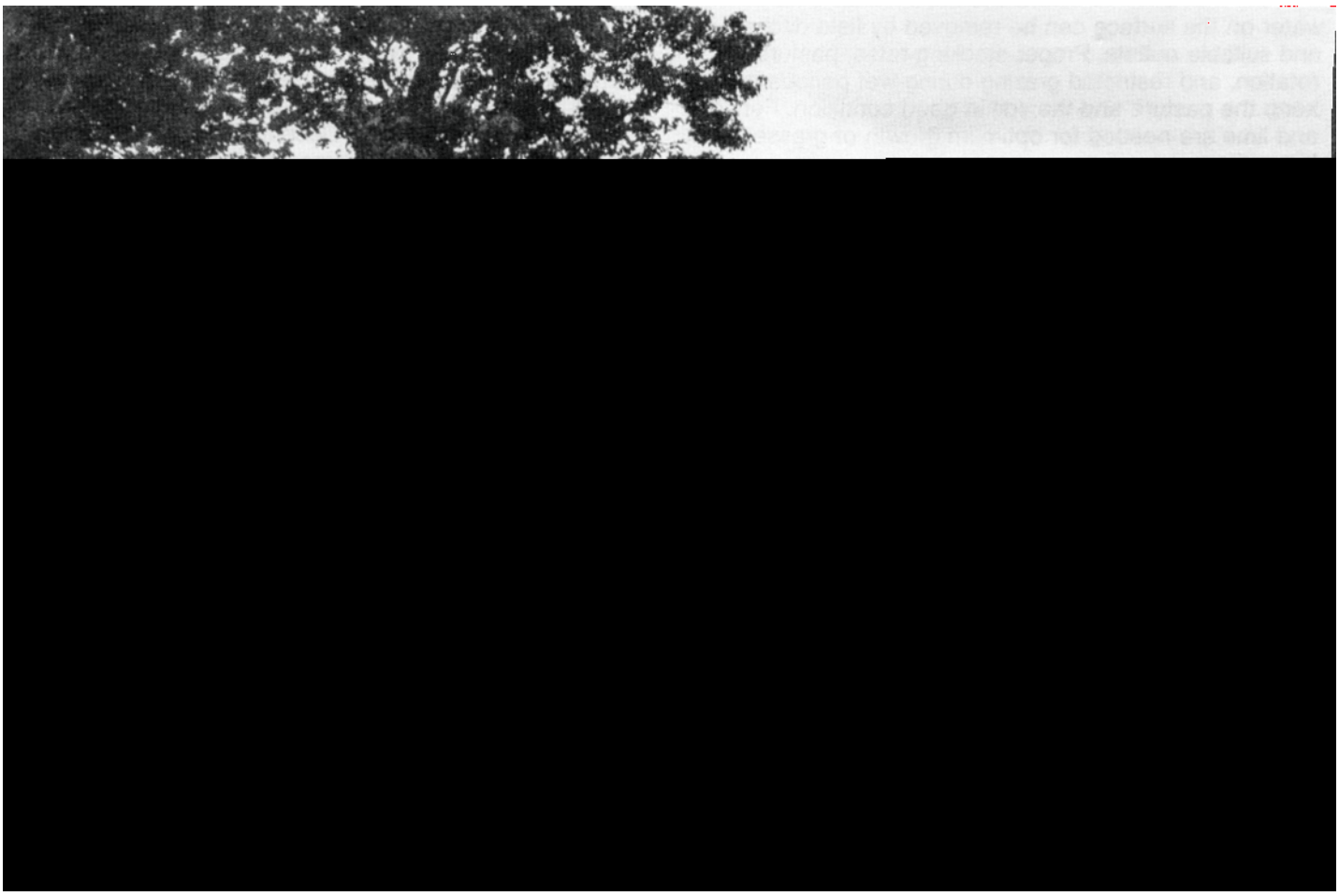


Figure 3.—Commerce silt loam is well suited to improved pasture.

the high water table increase the possibility of failure of septic tank absorption fields. Self-contained sewage

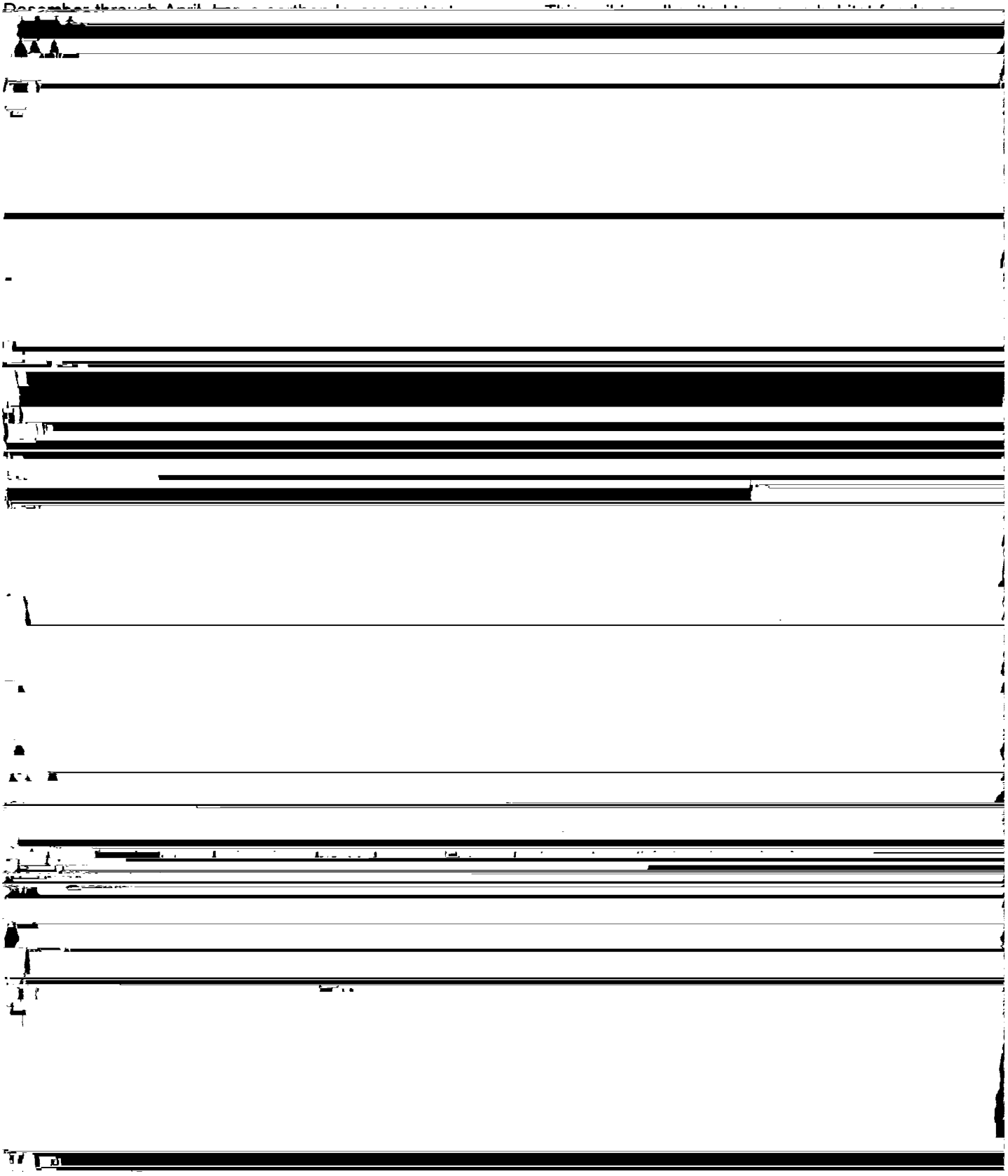
CE—Commerce and Convent soils, gently undulating, frequently flooded. These gently

water typically is 2 to 6 feet deep, but the depth exceeds 10 feet in places. Some areas of these soils are also subject to extensive scouring and deposition.

Typically, the surface of the Commerce soil is covered with a mat of leaves, twigs, and partially decomposed organic materials about 1 inch thick. The surface layer is dark gravish brown, neutral silty clay loam about 5

temporary levees and used as cropland or for industrial development.

These soils are moderately well suited to the production of southern hardwoods. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and the hazard of flooding. Only trees that can tolerate



be moved. Plowpans develop easily but can be broken up by deep plowing or chiseling. Maintaining crop residue on or near the surface reduces runoff and helps to maintain soil tilth and organic matter content. Most crops respond well to nitrogen fertilizers. Lime is generally not needed.

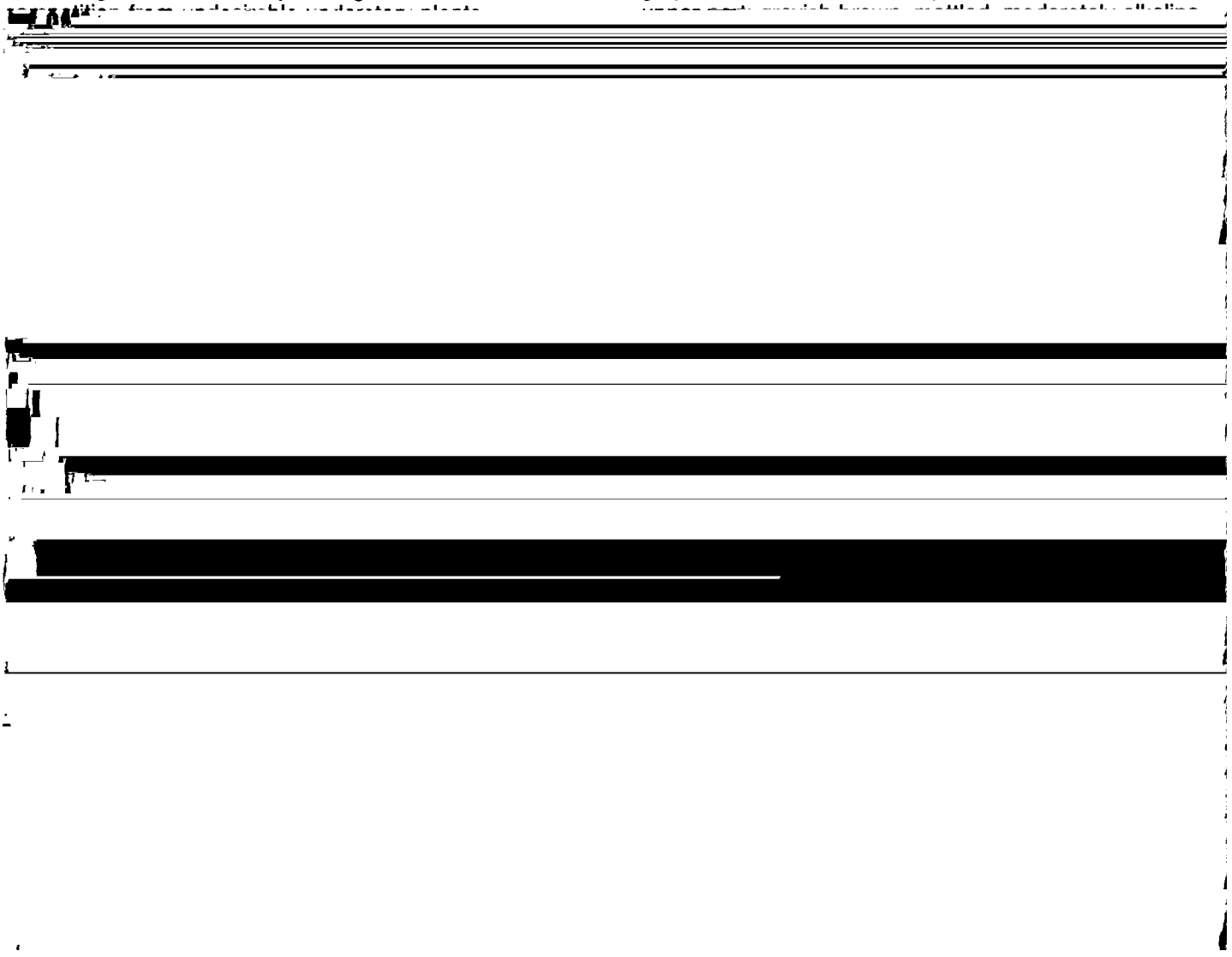
This Convent soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, white clover, ryegrass, and tall fescue. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Nitrogen fertilizer is needed where grasses are grown alone. Lime is generally not needed.

This soil is well suited to the production of eastern cottonwood and American sycamore. Potential timber production is very high. This soil has few limitations for woodland use and management. Reforestation after harvesting must be carefully managed to reduce [redacted]

is in the swales and makes up about 35 percent of the complex. The soils of this complex are so intricately intermingled that it was not practical to map them separately at the scale selected for mapping. Slopes range from about 1 percent in the swales to about 3 percent on the ridges.

These soils are subject to flooding as often as 2 times in each 5-year period (11 to 40 times in 100 years) between June 1 and November 30 or more frequently between December 1 and May 31. Flood water typically is 2 to 6 feet deep, but the depth exceeds 10 feet in places. Areas of these soils on the batture of the Atchafalaya River are subject to overflows from the river. Areas on the protected side of the levees are flooded mainly by backwaters and overflows from other streams.

Typically, the Convent soil has a surface layer of dark grayish brown, neutral silt loam about 5 inches thick. The underlying material to a depth of about 60 inches is grayish brown, mottled, mildly alkaline silt loam in the [redacted]



hazard of flooding. The main suitable crops are soybeans, corn, and grain sorghum. These soils are friable and easy to keep in good tilth. They can be worked over a wide range of moisture content. Spring and summer flooding damages crops in some years. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Flooding can be controlled by the use of levees, field drains, and pumps. Land grading and smoothing improve surface drainage, but in most places large volumes of soil need to be moved. Plowpans develop easily but can be broken up by deep plowing or chiseling. Maintaining

Co—Coteau silt loam, 0 to 1 percent slopes. This level, somewhat poorly drained soil is on broad, slightly convex ridgetops on the terrace uplands.

Typically, the surface layer is brown, very strongly acid silt loam about 6 inches thick. The subsoil to a depth of about 72 inches is dark brown, very strongly acid or strongly acid silty clay loam in the upper part; mottled dark brown and light brownish gray, medium acid silty clay loam in the middle part; and dark brown, mottled, medium acid silt loam in the lower part.

Included with this soil in mapping are a few small areas of Calhoun, Frost, and Loring soils. The poorly

competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees.

This soil is moderately well suited to urban development. It is limited mainly by wetness and moderate shrink-swell potential. Drainage is needed if roads and building foundations are constructed. Excess water can be removed by shallow ditches and proper grading. Buildings and roads can be designed to offset the effects of shrinking and swelling. Moderately slow permeability and the seasonal high water table increase the possibility of failure of septic tank absorption fields. The limitation of moderately slow permeability can be overcome by increasing the size of the absorption field. Self-contained sewage disposal units can be used to dispose of sewage properly. Mulching, fertilizing, and irrigation are needed to establish lawn grasses and other small-seeded plants. Roads and streets should be designed to offset the limited ability of the soil to support a load.

This Coteau soil is moderately well suited to recreational development. It is limited mainly by wetness and moderately slow permeability. Good drainage should be provided for intensively used areas such as camp sites and playgrounds. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for doves, quail, rabbits, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Coteau soil is in capability subclass IIw and in woodland group 1w.

Cp—Coteau silt loam, 1 to 3 percent slopes. This very gently sloping, somewhat poorly drained soil is on

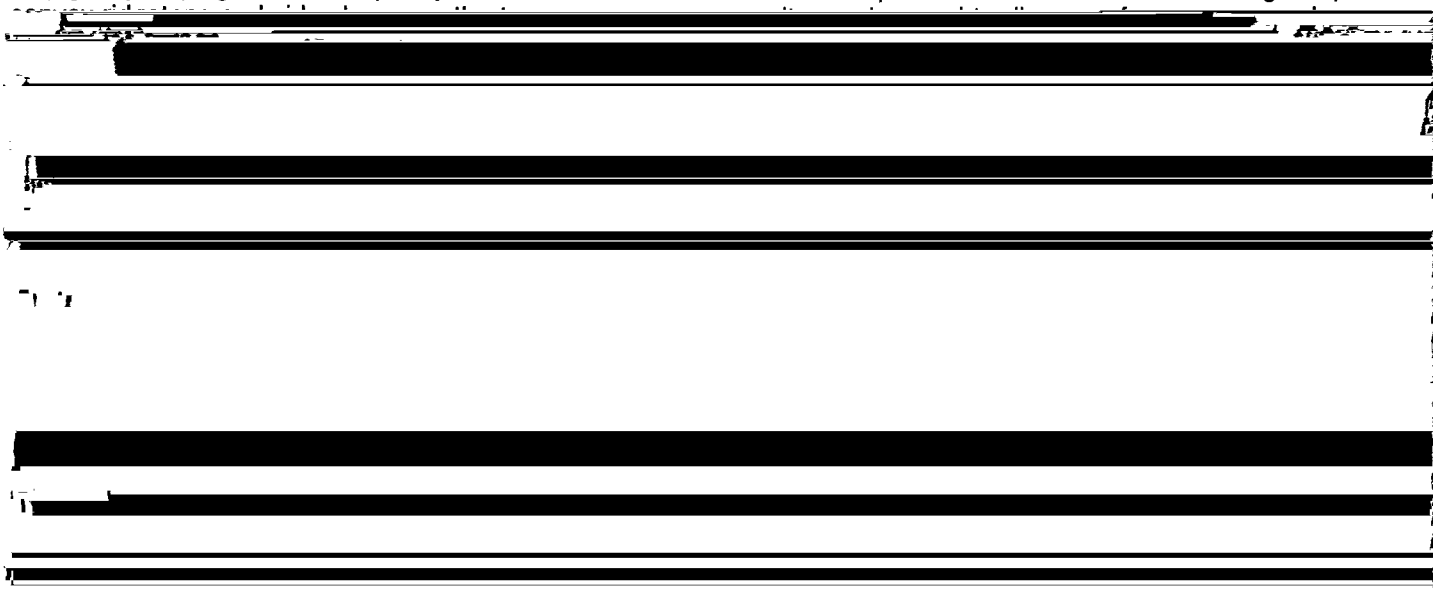
during December through April. Plants are damaged by lack of water during dry periods in summer and fall of some years.

Most areas of this soil are used for cultivated crops. A few areas are used as pasture or for homesites.

This soil is well suited to cultivated crops. It is limited mainly by droughtiness and the moderate hazard of erosion. Soybeans is the main crop; but corn, cotton, vegetables, and sweet potatoes are also suitable crops. The Coteau soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Plowpans develop easily but can be broken up by deep plowing or chiseling. All tillage should be on the contour or across the slope. Limiting tillage for seedbed preparation and weed control reduces runoff and erosion. Crusting of the surface and compaction of the soil can be reduced by returning the crop residue to the soil and by using minimum tillage. Most crops respond well to fertilizer. Lime is generally needed.

This Coteau soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, and vetch. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grass and legumes.

This soil is moderately well suited to urban development. It is limited mainly by wetness and moderate shrink-swell potential. Excess water can be removed by shallow ditches and proper grading. Preserving the existing plant cover during construction helps to control erosion. Buildings and roads can be designed to offset the effects of shrinking and swelling. Moderately slow permeability and the seasonal high water table increase the possibility of failure of septic tank absorption fields. Self-contained sewage disposal



appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Coteau soil is in capability subclass IIe and in woodland group 1w.

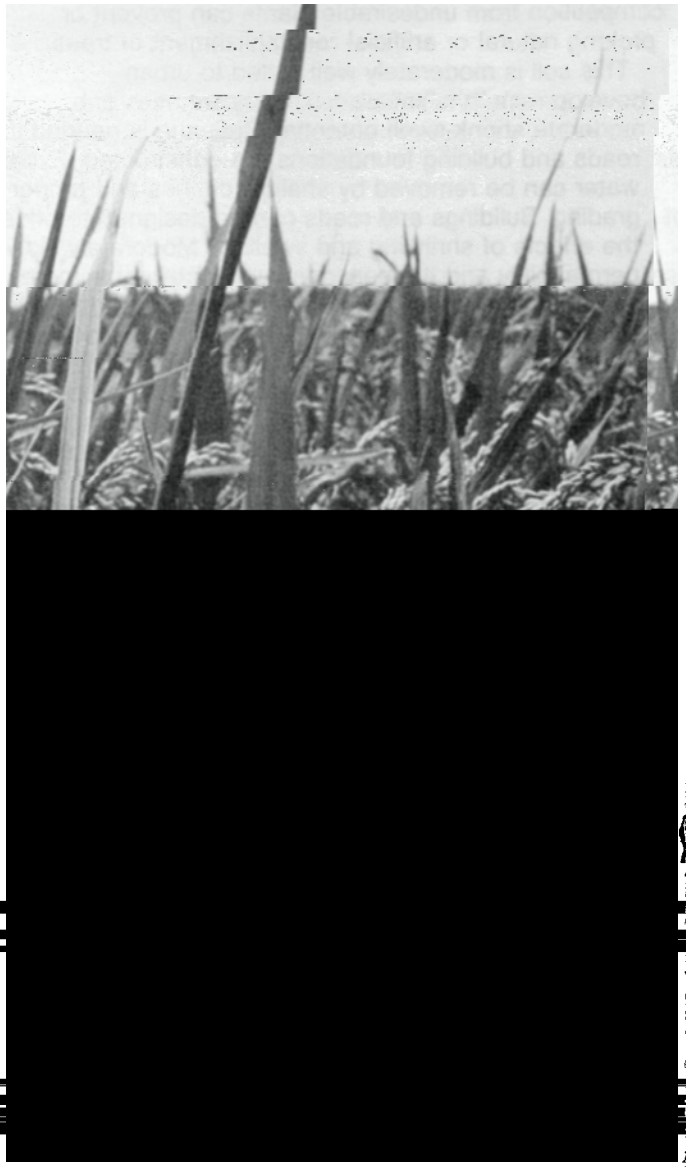
Cw—Crowley silt loam. This level, somewhat poorly drained soil is on broad, slightly convex ridges on the terrace uplands. Slopes are less than 1 percent.

Typically, the surface layer is dark grayish brown, mottled, very strongly acid silt loam about 7 inches thick. The subsurface layer is grayish brown, mottled, neutral silt loam to a depth of 20 inches. The subsoil to a depth of 60 inches is grayish brown, mottled, strongly acid silty clay in the upper part; grayish brown, mottled, strongly acid silty clay loam in the middle part; and light brownish gray, mottled, slightly acid silty clay loam in the lower part.

Included with this soil in mapping are a few small areas of Frost, Mamou, and Mowata soils. The poorly drained Frost and Mowata soils are in depressional areas and have a subsurface layer that tongues into the subsoil. The Mamou soils are on side slopes and have less clay in the subsoil than the Crowley soils. The included soils make up about 15 percent of the map unit.

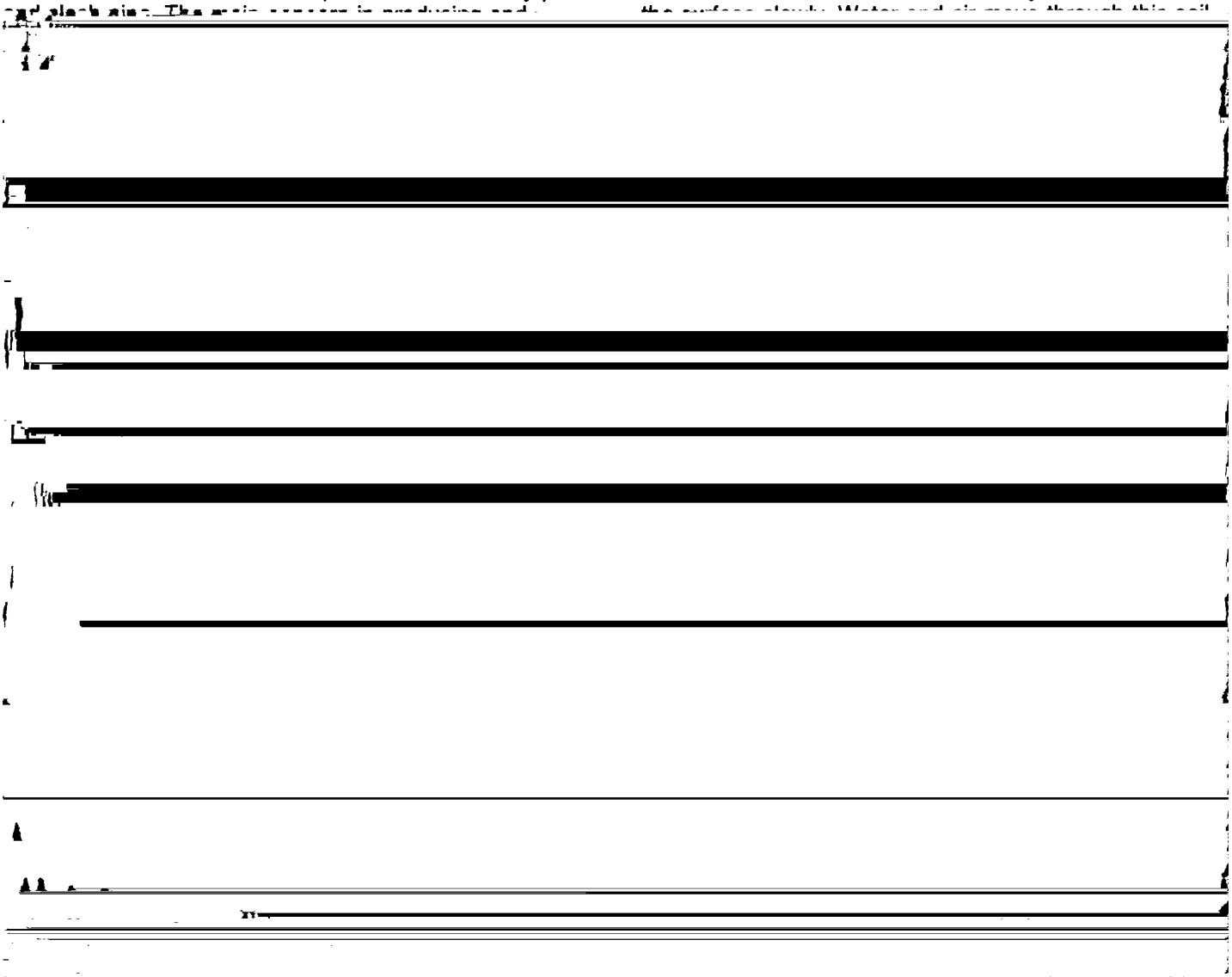
This Crowley soil has low fertility. Water runs off the [illegible] slowly and stands in low places for short periods after heavy rains. Water and air move through this soil very slowly. A seasonal high water table is at a depth of 1/2 foot to 1-1/2 feet below the surface during December through April. It is perched above the clayey subsoil. This soil has high shrink-swell potential. Plants are damaged by lack of water during dry periods in summer and fall of some years. This soil is somewhat difficult to keep in good tilth because of surface crusting.

Most of the acreage of this soil is used for cultivated



This soil is well suited to the production of loblolly pine and slash pine. The main concern in producing and

This Dundee soil has medium fertility. Water runs off the surface slowly. Water and air move through this soil



harvesting timber is the limitation of equipment because of wetness. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants. Conventional methods of harvesting timber can be used, but their use may be limited during rainy periods, generally from December to April.

This soil is poorly suited to urban development. The main limitations are wetness, very slow permeability, and a high shrink-swell potential. Excess water can be removed by shallow ditches and proper grading. Many areas of this soil are artificially drained by storm sewers and ditches. Septic tank absorption fields do not function properly during rainy periods because of wetness and very slow permeability. Lagoons or self-contained

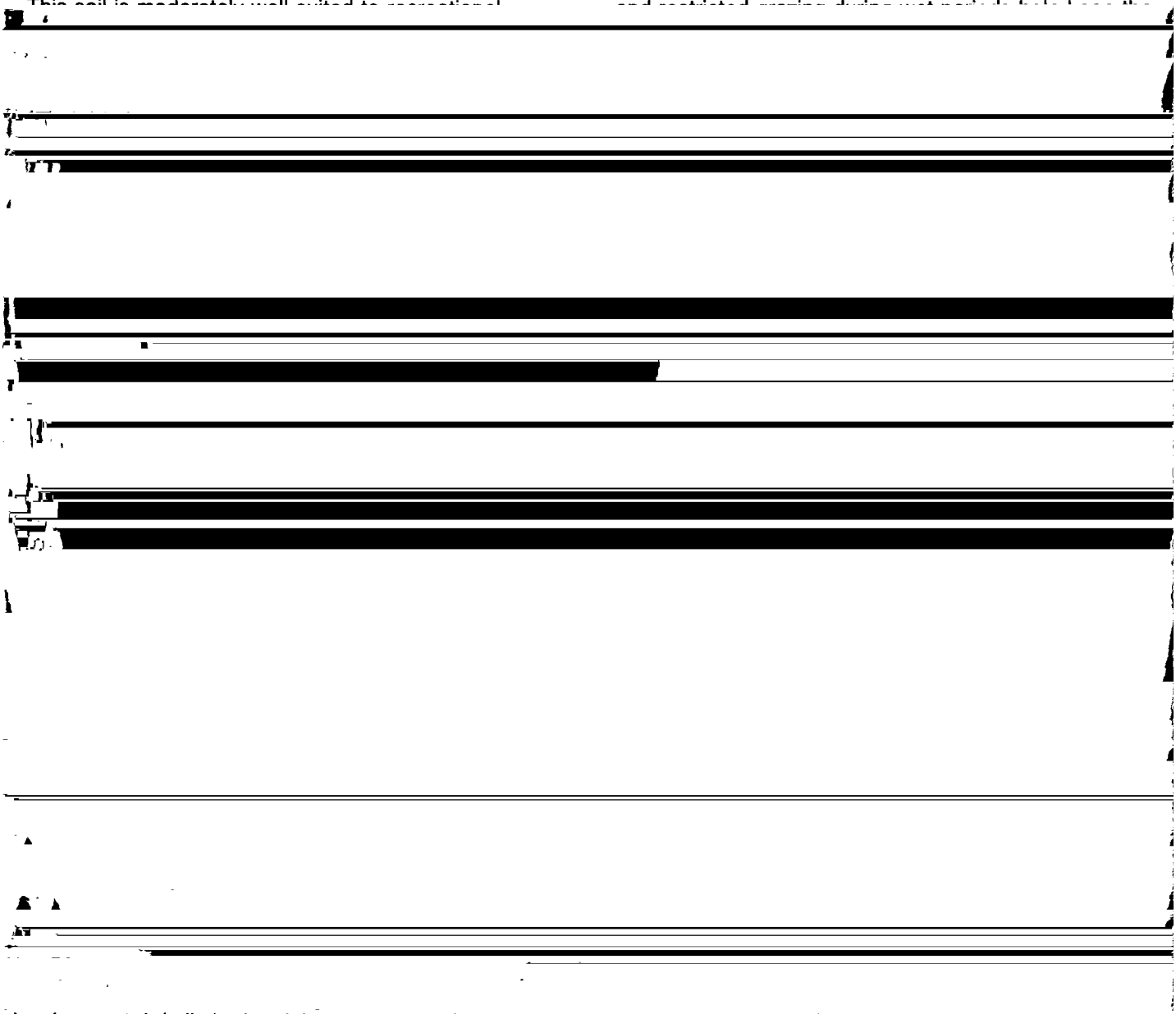
at a moderately slow rate. A seasonal high water table fluctuates between a depth of about 1-1/2 and 3-1/2 feet below the surface during January through April. An adequate supply of water is available to plants in most years. This soil has moderate shrink-swell potential.

Most of the acreage of this soil is used for cultivated crops. A small acreage is used as pasture, woodland, or as homesites.

This soil is well suited to cultivated crops. It is limited mainly by wetness. Soybeans is the main crop; but corn, cotton, grain sorghum, and sweet potatoes are also suitable crops. This soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess

minimized by increasing the size of the absorption field. Mulching, fertilizing, and irrigation are needed to establish lawn grasses and other small-seeded plants.

This soil is moderately well suited to recreational



development. It is limited mainly by wetness. Good drainage should be provided for most recreational uses. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for rabbits, deer, squirrels, doves, quail, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Dundee soil is in capability subclass IIw and in woodland group 2w.

grain, white clover, and red clover. Excessive water on the surface can be removed by drainage ditches and suitable outlets. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to woodland; however, only a few areas remain in the native hardwoods. The potential production of hardwood trees is high. Wetness limits the use of equipment. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants. Competing vegetation can be controlled by proper site preparation and by spraying, cutting, or girdling to eliminate unwanted weeds, brush, or trees. Conventional methods of harvesting timber can be used, but their use may be limited during rainy

separately at the scale selected for mapping. Slopes range from about 1 percent in the swales to about 3 percent on the ridges.

Typically, the Dundee soil has a surface layer of grayish brown, strongly acid silt loam about 6 inches thick. The subsoil is grayish brown, mottled, very strongly acid silty clay loam in the upper part; grayish brown, mottled, strongly acid silty clay loam in the middle part; and grayish brown, mottled, medium acid loam in the lower part. The underlying material to a depth of about 68 inches is grayish brown, mottled, slightly acid very fine sandy loam in the upper part and gray, mottled,

cultivated crops and pasture plants. Land grading and smoothing improve surface drainage, but in places large volumes of soil need to be moved. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Most crops respond well to fertilizer. Lime is generally needed.

These soils are moderately well suited to pasture. Wetness is the main limitation. The main suitable pasture plants are common bermudagrass, improved bermudagrass, dallisgrass, tall fescue, and ryegrass. Proper stocking rates, pasture rotation, and restricted

Ds—Dundee-Sharkey complex, gently undulating. These gently undulating, somewhat poorly drained and poorly drained soils are on natural levees of old distributary channels of the Mississippi River. The landscape consists of low, parallel ridges and swales. The ridges are 1 foot to 4 feet high and 100 to 275 feet wide. The swales are 70 to 200 feet wide. The somewhat poorly drained Dundee soil is on the ridges and makes up about 50 percent of the complex. The poorly drained Sharkey soil is in the swales and makes up about 35 percent. The soils of this complex are so intricately intermingled that it was not practical to map them separately at the scale selected for mapping. Slopes range from about 1 percent in the swales to about 3 percent on the ridges.

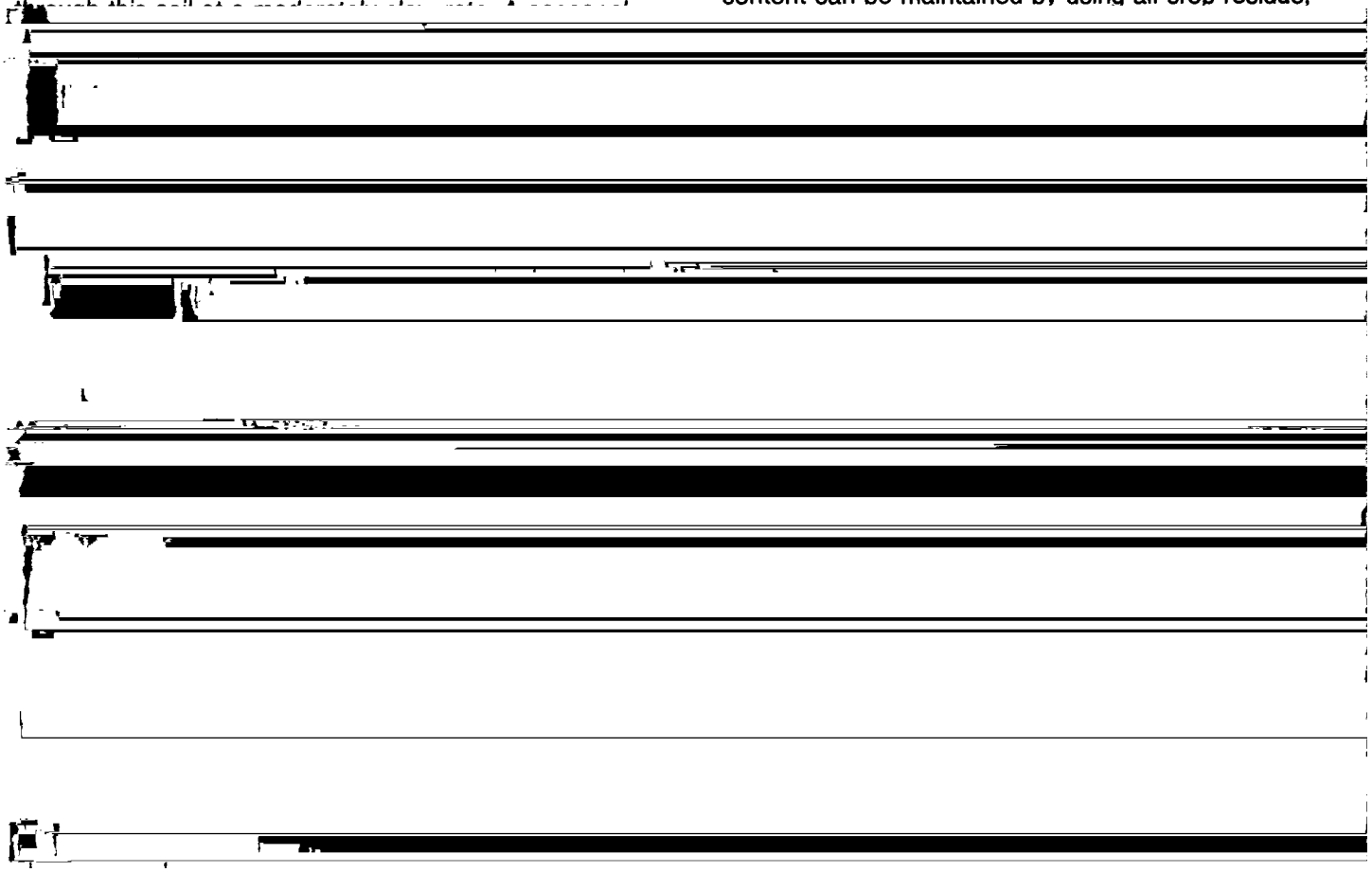
Typically, the Dundee soil has a surface layer of dark grayish brown, medium acid silt loam about 6 inches thick. The subsoil is grayish brown, mottled, very strongly acid silty clay loam in the upper part and grayish brown, mottled, strongly acid silt loam in the lower part. The underlying material to a depth of about 60 inches is grayish brown, mottled, medium acid very fine sandy loam. In places, the surface layer is silty clay loam.

This Dundee soil has medium fertility. Water runs off the surface at a medium rate. Water and air move

Most of the acreage of this complex is in woodland or cropland. A small acreage is used as pasture.

The Dundee and Sharkey soils are well suited to woodland. The potential production of eastern cottonwood, sweetgum, and water oak is high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness. Only trees that can tolerate seasonal wetness should be planted in the swales. Conventional methods of harvesting timber can be used, but their use may be limited during rainy periods, generally from December to June. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

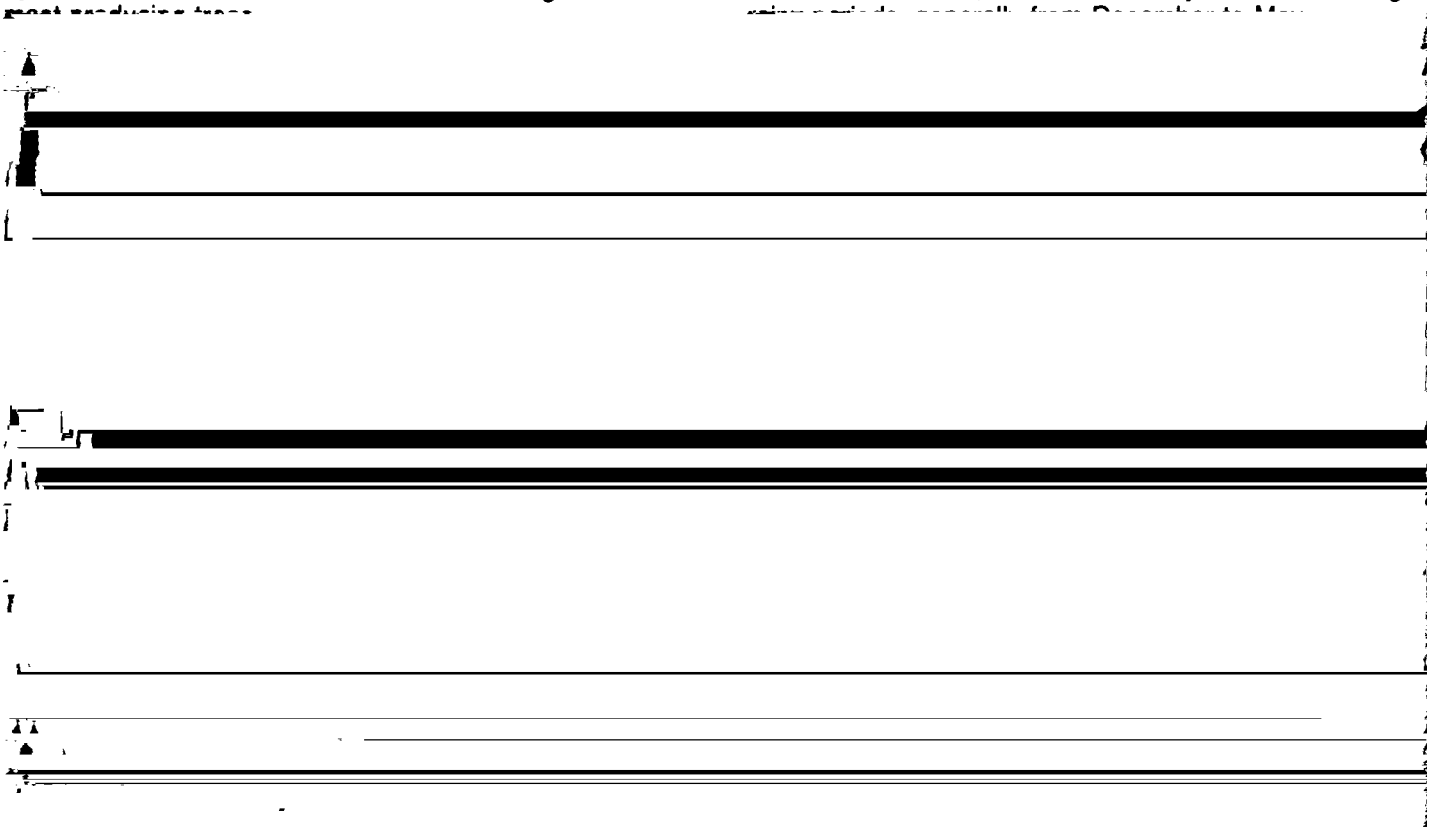
These soils are moderately well suited to cultivated crops. Uneven slopes and wetness are the main limitations. Soybeans, corn, and grain sorghum are the main crops. The Dundee soil is friable and easy to keep in good tilth. The Sharkey soil is difficult to keep in good tilth. It can be worked only within a narrow range of moisture content. Irregular slopes hinder tillage operations. A drainage system is needed for most cultivated crops and pasture plants. Land grading and smoothing improve surface drainage, but in places large volumes of soil need to be moved. The organic matter content can be maintained by using all crop residue,



clayey surface layer in the Sharkey soil and wetness in both the Dundee and the Sharkey soils. Good drainage should be provided for most recreational uses. Plant cover can be maintained by controlling traffic.

These soils are well suited to use as habitat for deer, squirrels, rabbits, doves, ducks, and numerous small furbearing animals. Habitat for wildlife can be improved by the selective harvest of timber to leave large den and [illegible]

These soils are moderately well suited to woodland. Although the potential production of green ash, cherrybark oak, Nuttall oak, and eastern cottonwood is very high, management is difficult. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and flooding hazard. Conventional methods of harvesting timber can be used, but their use may be limited during [illegible]



This Dundee-Sharkey complex is in capability subclass IIIw and in woodland group 2w.

FA—Falaya soils, frequently flooded. These level, somewhat poorly drained soils are on the flood plains of streams that drain the terrace uplands. These soils are frequently flooded for brief periods. Slopes are less than 1 percent.

A typical area of this map unit is about 60 percent Falaya soils and 30 percent soils that are similar to Falaya soils except that they are wetter or contain more clay throughout. The Falaya and similar soils are [illegible]

Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

The Falaya and similar soils are poorly suited to pasture. The main limitations are wetness and flooding hazard. The main suitable pasture plant is common bermudagrass. The use of equipment is limited by wetness and flooding. Rotation grazing helps to maintain the quality of forage. During flood periods, cattle should be moved to adjacent protected areas or to pastures at higher elevations.

These soils are generally [illegible]

The Fausse soil has high fertility. It is subject to brief to very long periods of ponding and flooding during any season of the year, and it is generally flooded continuously from late in fall to early in summer. Flood water inside the Atchafalaya Basin Floodway typically is 4 to 6 feet deep, but the depth exceeds 12 feet in some places. Flood water in other areas typically is 2 to 4 feet deep. Water runs off the surface very slowly. During nonflooding periods, the water table fluctuates between a depth of 1-1/2 feet below the surface to 1 foot above the surface. Water and air move through this soil very slowly. This soil has very high shrink-swell potential, but it seldom dries out enough to crack. An adequate supply of water is available to plants in most years.

Typically, the surface of the Sharkey soil is covered with a mat of leaves, roots, and twigs about 1 inch thick. The surface layer is dark grayish brown, moderately alkaline clay about 4 inches thick. The subsoil is dark gray, mottled, moderately alkaline clay in the upper part and gray, mottled, moderately alkaline clay in the lower part. The underlying material to a depth of about 60 inches is gray, mottled, moderately alkaline clay.

The Sharkey soil has high fertility. It is subject to brief to very long periods of ponding and flooding during any

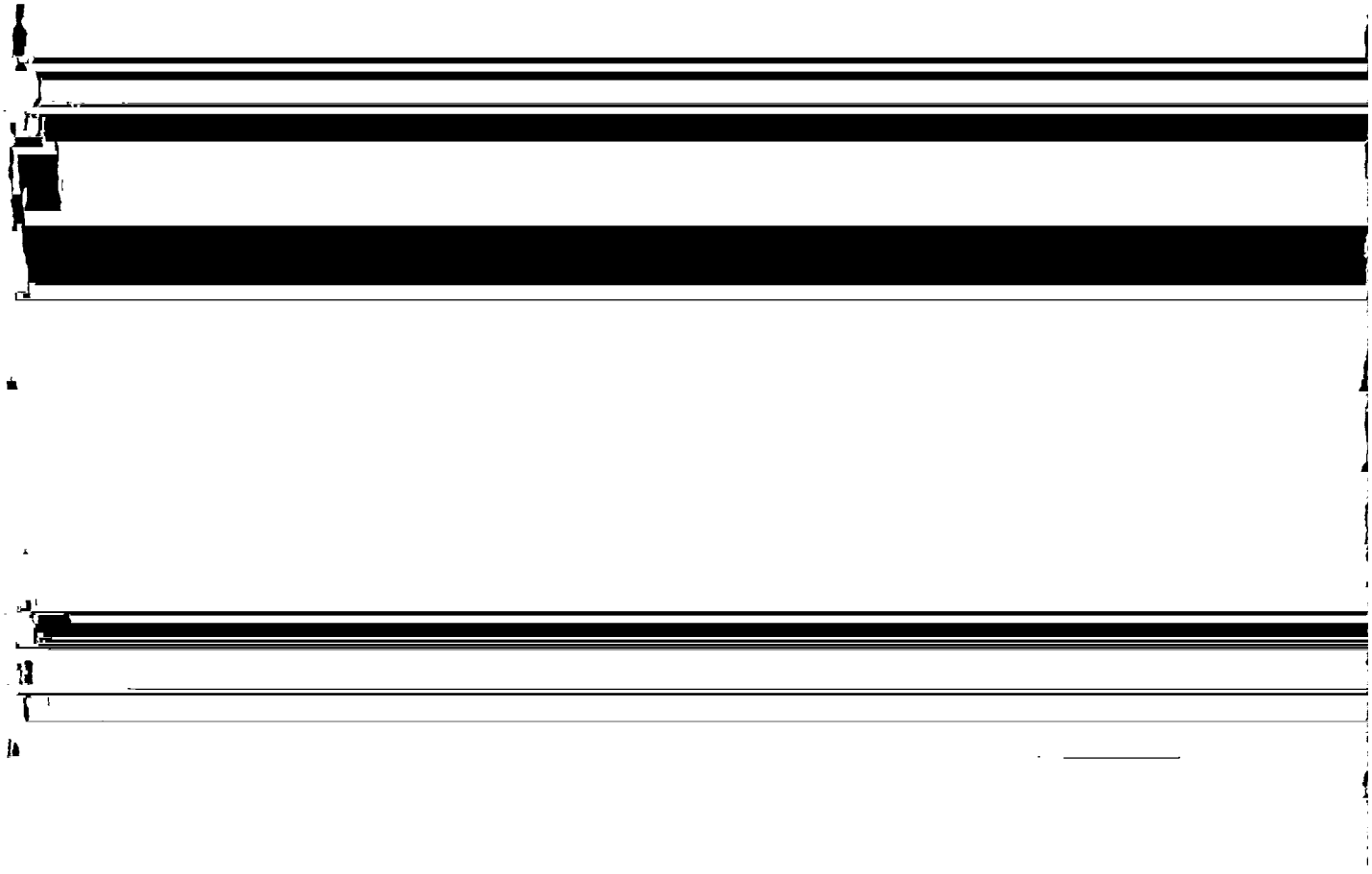
These soils are generally not suited to the economic production of cultivated crops and pasture plants because of wetness and flooding.

They are not suited to urban development and most recreational uses. The hazard of flooding is too severe for these uses. Major flood control structures and extensive local drainage improvements are needed to protect these soils from ponding and flooding. Roads need to be specially designed to offset the limited ability of the soils to support a load, and they need to be raised to elevations above flood levels.

The Fausse and Sharkey are in capability subclass VIIw. The Fausse soil is in woodland group 4w, and the Sharkey soil is in 3w.

Fo—Frost silt loam. This level, poorly drained soil is on broad flats and along drainageways on the terrace uplands. Slopes are less than 1 percent.

Typically, the surface layer is dark grayish brown, medium acid silt loam about 6 inches thick. The subsurface layer, to a depth of about 19 inches, is dark gray, mottled, strongly acid silt loam in the upper part and gray, mottled, strongly acid silt loam in the lower part. The subsoil to a depth of about 60 inches is dark



arrangement, field ditches, and suitable outlets are needed to remove excess water. Land grading and smoothing improve surface drainage, allow more uniform application of irrigation water, and permit more efficient use of farm equipment. Proper irrigation systems should be used for the production of rice. Pipe or other drop structures should be installed in drainage ditches to control the water level in rice fields and to prevent excessive erosion of ditches. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Crops respond well to lime and fertilizer.

This Frost soil is well suited to pasture. Wetness is the main limitation. The main suitable pasture plants are common bermudagrass, white clover, wild winter peas, vetch, bahiagrass, tall fescue, and ryegrass. Excessive water on the surface can be removed by field ditches

Fr—Frost silt loam, occasionally flooded. This level, poorly drained soil is along drainageways on the terrace uplands. Slopes are less than 1 percent.

Typically, the surface layer is dark grayish brown, medium acid silt loam about 6 inches thick. The subsurface layer, to a depth of about 22 inches, is grayish brown, mottled, strongly acid silt loam in the upper part and gray, mottled, very strongly acid silt loam in the lower part. The subsoil to a depth of about 60 inches is light brownish gray, mottled, strongly acid silty clay loam in the upper part and light brownish gray, mottled, slightly acid silty clay loam in the lower part.

Included with this soil in mapping are a few small areas of Jeanerette soil. The Jeanerette soils are in similar positions as Frost soil, and they have a dark colored surface layer. The included soils make up about 10 percent of the map unit.

This Frost soil has medium fertility. Water runs off the

crop residue to the soil and by using minimum tillage. Most crops respond well to fertilizer. Lime is generally needed.

This Frost soil is moderately well suited to the production of cherrybark oak, water oak, loblolly pine, and slash pine. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and flooding. Conventional methods of harvesting timber can be used, but their use may be limited during rainy periods, generally from December to June. If site preparation is not adequate, competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees. Competing vegetation can be controlled by proper site preparation and by spraying, cutting, or girdling to eliminate unwanted weeds, brush, or trees.

This soil is poorly suited to use for most urban uses. It is not suited to use for building sites. The main limitations are flooding and wetness. Protection from flooding can be provided by constructing levees and diverting water away from the urban areas. Drainage can be provided by shallow ditches. Roads should be built above flood elevations and designed to offset the limited ability of the soil to support a load.

This soil is poorly suited to recreational development.

drainageways, and they are poorly drained and more acid throughout than the Frozard soil. The Patoutville soils are in slightly higher positions and are more acid in the subsoil than the Frozard soil. The included soils make up about 10 percent of the map unit.

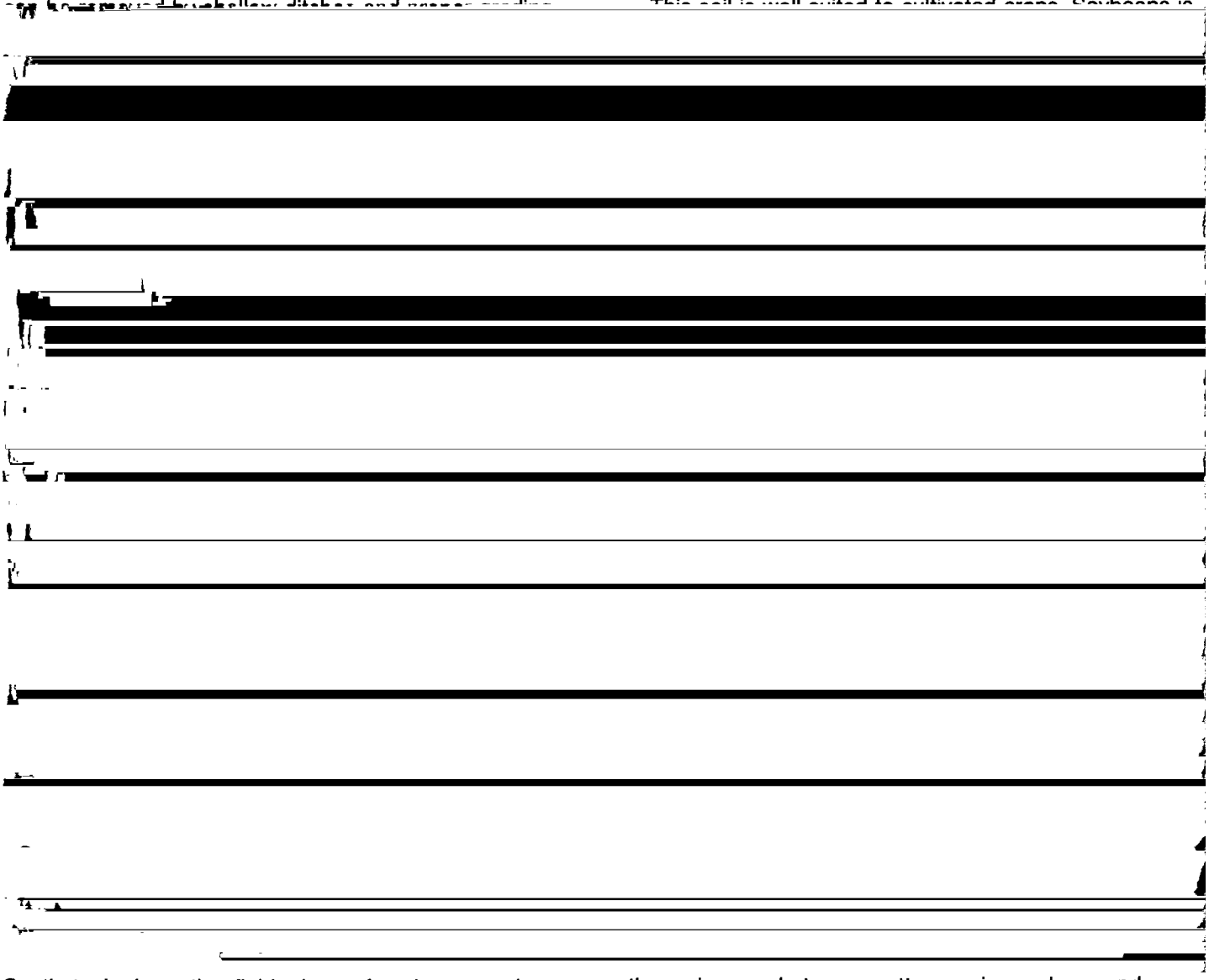
This Frozard soil has medium fertility. Water runs off the surface slowly, and the surface layer remains wet for long periods after heavy rainfall. Water and air move through this soil slowly. A perched seasonal high water table is at a depth of about 1 foot to 3 feet below the surface during December through April. The moderately high concentration of sodium in the upper part of the subsoil restricts root development and limits the amount of water available to plants. Plants are damaged by lack of water during dry periods in summer and fall of most years. This soil has moderate shrink-swell potential.

Most of the acreage of this soil is used for cultivated crops. A small acreage is used as pasture or for homesites.

This soil is moderately well suited to cultivated crops. It is limited mainly by wetness in the spring and droughtiness in the summer and fall. The accumulations of sodium in the upper part of the subsoil restrict plant growth. Soybeans is the main crop; but corn, cotton,

This soil is poorly suited to urban development. It is limited mainly by wetness. Drainage is needed if roads and building foundations are constructed. Excess water

Most areas of this soil are used as cropland. A few small areas are used for homesites or as pasture, and a few large areas are used as woodland.



Septic tank absorption fields do not function properly during rainy periods because of wetness and slow permeability. Mulching, fertilizing, and irrigation are needed to establish lawn grasses and other small-seeded plants. Roads and streets should be designed to offset the limited ability of the soil to support a load.

This soil is moderately well suited to recreational development. It is limited mainly by wetness. Good drainage should be provided for most intensively used areas. Plant cover can be maintained by controlling traffic.

This soil is well suited to use as habitat for doves, quail, rabbits, and numerous small furbearing animals. Habitat for wildlife can be improved by planting

the main crop; but corn, cotton, grain sorghum, and sweet potatoes are also suitable (fig. 5). This soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Plowpans develop easily but can be broken up by deep plowing or chiseling. Land grading and smoothing improve surface drainage and permit more efficient use of farm equipment. Crusting of the surface and compaction of the soil can be reduced by returning the crop residue to the soil and by using minimum tillage. Most crops respond well to fertilizer. Lime is generally needed.

This Gallion soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, small

Figure 5.—Gallion silt loam is well suited to cultivated crops, such as soybeans.

material to a depth of about 60 inches is yellowish red, moderately alkaline, stratified silt loam and very fine

periods after heavy rains. Water and air move through this soil at a moderate rate. An adequate supply of water

This soil is somewhat difficult to keep in good tilth. It becomes cloddy if farmed when it is too wet or too dry. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Land grading and smoothing improve surface drainage. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Most crops respond well to fertilizer.

This Gallion soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, small grains, and white clover. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help

Typically, the Gallion soil has a surface layer of dark brown, medium acid silt loam about 6 inches thick. The subsoil is reddish brown, medium acid silty clay loam in the upper part; yellowish red, slightly acid silty clay loam in the middle part; and reddish brown, mildly alkaline silty clay loam in the lower part. The next layer is reddish brown, mildly alkaline silt loam. The underlying material to a depth of about 60 inches is yellowish red, moderately alkaline very fine sandy loam. In places, the surface layer is silty clay loam.

This Gallion soil has medium fertility. Water runs off the surface slowly. Water and air move through this soil at a moderate rate. This soil dries rapidly after heavy rains. Typically, a seasonal high water table is more than

good tilth and can be worked only within a narrow range of moisture content. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Most crops respond well to fertilizer. Lime is generally needed.

These soils are well suited to pasture. Wetness is the main limitation. The main suitable pasture plants are common bermudagrass, improved bermudagrass, dallisgrass, ryegrass, and tall fescue. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. The use of equipment is limited by wetness in the swales after rains. Fertilizer and lime are needed for optimum growth of grasses and legumes.

These soils are well suited to woodland. The potential production of hardwood trees is high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness in the swales. Trees should be water tolerant, and they

Ia—Iberia clay. This level, poorly drained soil is in broad, concave areas on the natural levees of distributary channels of the Mississippi River. Slopes are less than 1 percent.

Typically, the surface layer is black, slightly acid clay about 12 inches thick. The subsoil is olive gray, mottled, neutral clay in the upper part; gray, mottled, neutral clay in the middle part; and gray, mottled, neutral silty clay in the lower part. The underlying material to a depth of about 70 inches is grayish brown, mottled, neutral silt loam. In places, the surface layer is silty clay.

Included with this soil in mapping are a few small areas of Baldwin, Loreauville, and Sharkey soils. The Baldwin soils are on low ridges and have a thin, dark colored surface horizon. The Loreauville soils are on ridges and are loamy throughout. The Sharkey soils are in similar positions and contain more clay in the subsoil than the Iberia soil. The included soils make up about 10

condition. Fertilizer is generally needed for optimum growth of grasses and legumes.

This soil is well suited to woodland. The potential production of eastern cottonwood, green ash, and sweetgum is high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and the clayey surface texture. Because the clayey soil is sticky when wet, most planting and harvesting equipment can be used only during dry periods. Only trees that can tolerate seasonal wetness should be planted. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is poorly suited to urban development. Wetness, flooding, and very high shrink-swell potential are the main limitations. Drainage and other water control systems are needed to remove excess water and control flooding. Septic tank absorption fields do not function properly during rainy periods because of wetness and very slow permeability. Lagoons or self-contained sewage disposal units can be used to dispose

Frost soils are along drainageways and have a lighter colored surface layer than the Jeanerette soil. The Patoutville soils are on small ridges and are more acid in the subsoil than the Jeanerette soil. The included soils make up about 10 percent of the map unit.

This Jeanerette soil has medium fertility. Water runs off the surface slowly. Water and air move through this soil at a moderately slow rate. A seasonal high water table fluctuates between a depth of about 1 foot and 2-1/2 feet during December through April. The surface layer remains wet for long periods after heavy rains. An adequate supply of water is available to plants in most years. This soil has moderate shrink-swell potential.

Most of the acreage of this soil is used for cultivated crops. A small acreage is used as pasture or for homesites.

This soil is well suited to cultivated crops. It is limited mainly by wetness. Soybeans is the main crop; but rice, corn, cotton, vegetables, and grain sorghum are also suitable crops. The Jeanerette soil is friable and easy to keep in good tilth. It can be worked over a wide range of

small-seeded plants. Moderately slow permeability and the high water table increase the possibility of failure of septic tank absorption fields. The effects of the moderately slow permeability and the seasonal high water table can be minimized by increasing the size of

crop; but rice, grain sorghum, and corn are also suitable crops. The Judice soil is difficult to keep in good tilth. It can be worked only within a narrow range of moisture content. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface

existing plant cover, or by propagating the natural growth of desirable plants.

This Judice soil is in capability subclass IIIw and in woodland group 2w.

La—Latanier clay. This level, somewhat poorly drained soil is in intermediate positions on natural levees of old distributary channels of the Red River. Slopes are less than 1 percent.

Typically, the surface layer is dark reddish brown, neutral clay about 6 inches thick. The subsoil is dark reddish brown, moderately alkaline clay. The underlying material to a depth of about 60 inches is reddish brown, moderately alkaline very fine sandy loam in the upper part; reddish brown, moderately alkaline, stratified silt loam and silty clay loam in the middle part; and reddish brown, mottled, moderately alkaline silt loam in the lower part.

Included with this soil in mapping are a few small areas of Gallion and Lebeau soils. The well drained Gallion soils are in higher positions than the Latanier soil, and they are loamy throughout. The poorly drained Lebeau soils are in lower positions than the Latanier soil, and they are clayey throughout. The included soils make up about 10 percent of the map unit.

This Latanier soil has high fertility. Water runs off the surface slowly and stands in low places for long periods after heavy rains. Water and air move through this soil very slowly. The surface layer is very sticky when wet and dries slowly. A seasonal high water table is at a depth of about 1 foot to 3 feet during December through April. This soil has very high shrink-swell potential in the subsoil. An adequate suply of water is available to plants in most years. Flooding by backwaters is rare on an annual basis and during the cropping season. Flooding can occur, however, during periods of unusually prolonged, intense rainfall.

Most areas of this soil are used for cultivated crops. A few areas are used as woodland.

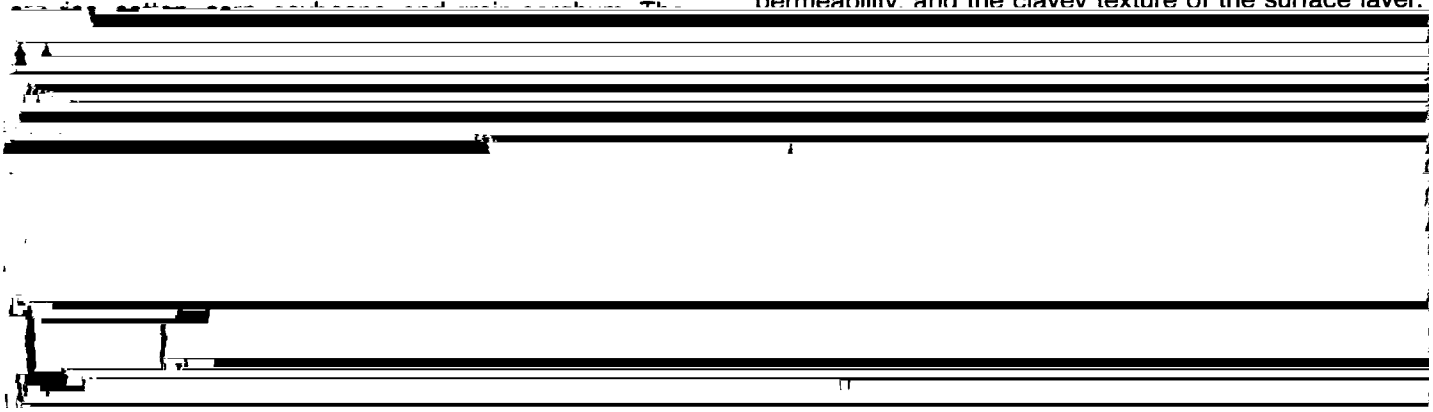
This soil is moderately well suited to cultivated crops. It is limited mainly by wetness, very slow permeability, and the clayey surface texture. The main suitable crops

This Latanier soil is well suited to pasture. Wetness is the main limitation. The main suitable pasture plants are common bermudagrass, improved bermudagrass, dallisgrass, ryegrass, white clover, vetch, and tall fescue. Excess surface water can be removed by shallow ditches. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Nitrogen fertilizer is needed for grasses grown alone. Lime is generally not needed.

This soil is well suited to woodland. The potential production of green ash, sweetgum, and eastern cottonwood is high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness. If site preparation is not adequate, competition from undesirable plants can prevent or prolong natural or artificial reestablishment of trees. Because the clayey soil is sticky when wet, most planting and harvesting equipment can be used only during dry periods. Only trees that can tolerate seasonal wetness should be planted. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is poorly suited to urban development. The main limitations are wetness, flooding, very slow permeability, and the very high shrink-swell potential. Drainage and other water control systems are needed to remove excess water and control flooding. Septic tank absorption fields do not function properly during rainy periods because of wetness and very slow permeability. Lagoons or self-contained sewage disposal units can be used to dispose of sewage properly. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. Drainage is needed for best results with most lawn grasses, shade trees, ornamental trees, shrubs, vines, and vegetable gardens. Roads and streets should be designed to offset the limited ability of the soil to support a load.

This soil is poorly suited to recreational development. It is limited mainly by wetness, flooding, very slow permeability, and the clayey texture of the surface layer.



Lb—Lebeau clay. This level, poorly drained soil is on the lowest part of natural levees of old distributary channels of the Red River. Slopes are less than 1 percent.

Typically, the surface layer is dark brown, slightly acid

fertilizer is needed where grasses are grown alone. Lime is generally not needed.

This soil is well suited to woodland. The potential production of green ash, sweetgum, and eastern cottonwood is high. The main concerns in producing and

underlying material to a depth of about 65 inches is dark reddish brown, mottled, moderately alkaline clay in the upper part; reddish brown, mottled, moderately alkaline clay in the middle part; and gray, mottled, moderately alkaline clay in the lower part.

Included with this soil in mapping are a few small areas of Latanier and Perry soils. The Latanier soils are on low ridges and have a loamy underlying material. The Perry soils are in depressional areas and have a subsoil that is grayer in the upper part than the Lebeau soil. The included soils make up about 10 percent of the map unit.

This Lebeau soil has medium fertility. It can flood as often as 2 times during each 5 year period (11 to 40 times in 100 years) between June 1 and November 30 or

Flood water typically is 1 to 3 feet deep, but the depth exceeds 10 feet in places. Water runs off the surface at a slow to very slow rate and stands in low places for

bermudagrass. During flood periods, cattle should be moved to adjacent protected areas or to pastures at higher elevations. Excessive water on the surface can be removed by shallow ditches if suitable outlets are available. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Nitrogen fertilizer is needed where grasses are grown alone. Lime is generally not needed.

This soil is poorly suited to urban development. It is not suited to building sites. The main limitations are wetness, the hazard of flooding, and very high shrink-swell potential. Major flood control structures, along with extensive local drainage systems, are needed to protect

swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. Roads and streets should be

Dundee soils are in higher positions and are more acid in the subsoil than the Loreauville soil. The included soils make up about 10 percent of the map unit.

This Loreauville soil has high fertility. Water runs off the surface slowly. Water and air move through this soil at a moderately slow rate. A seasonal high water table fluctuates between a depth of about 1 foot and 2-1/2 feet below the surface during December through April. An adequate supply of water is available to plants in most years.

Most of the acreage of this soil is used for cultivated crops. A small acreage is used as pasture.

This soil is well suited to cultivated crops. It is limited mainly by wetness. Soybeans is the main crop; but corn, cotton, grain sorghum, and vegetables are also suitable crops. The Loreauville soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Plowpans develop easily but can be broken up by deep plowing or chiseling. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Land grading and smoothing improve surface drainage and permit more efficient use of farm equipment. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Most crops respond well to fertilizer. Lime is generally not needed.

This Loreauville soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, small grains, white clover, and wild winter peas. Grazing when the soil is wet results in compaction of the surface layer. Excessive surface water can be removed by shallow field ditches and suitable outlets. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer is needed for optimum growth of grasses and legumes.

This soil is well suited to woodland; however, all areas have been cleared. The potential production of

sewage disposal units can be used to dispose of sewage properly.

This soil is moderately well suited to recreational development. It is limited mainly by wetness. Good drainage should be provided for most recreational uses. Plant cover can be maintained by fertilizing and by controlling traffic.

This soil is well suited to use as habitat for ducks, rabbits, quail, doves, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Loreauville soil is in capability subclass IIw and in woodland group 1w.

Lp—Loring silt loam, 1 to 5 percent slopes. This gently sloping, moderately well drained soil is on side slopes and ridgetops on the terrace uplands.

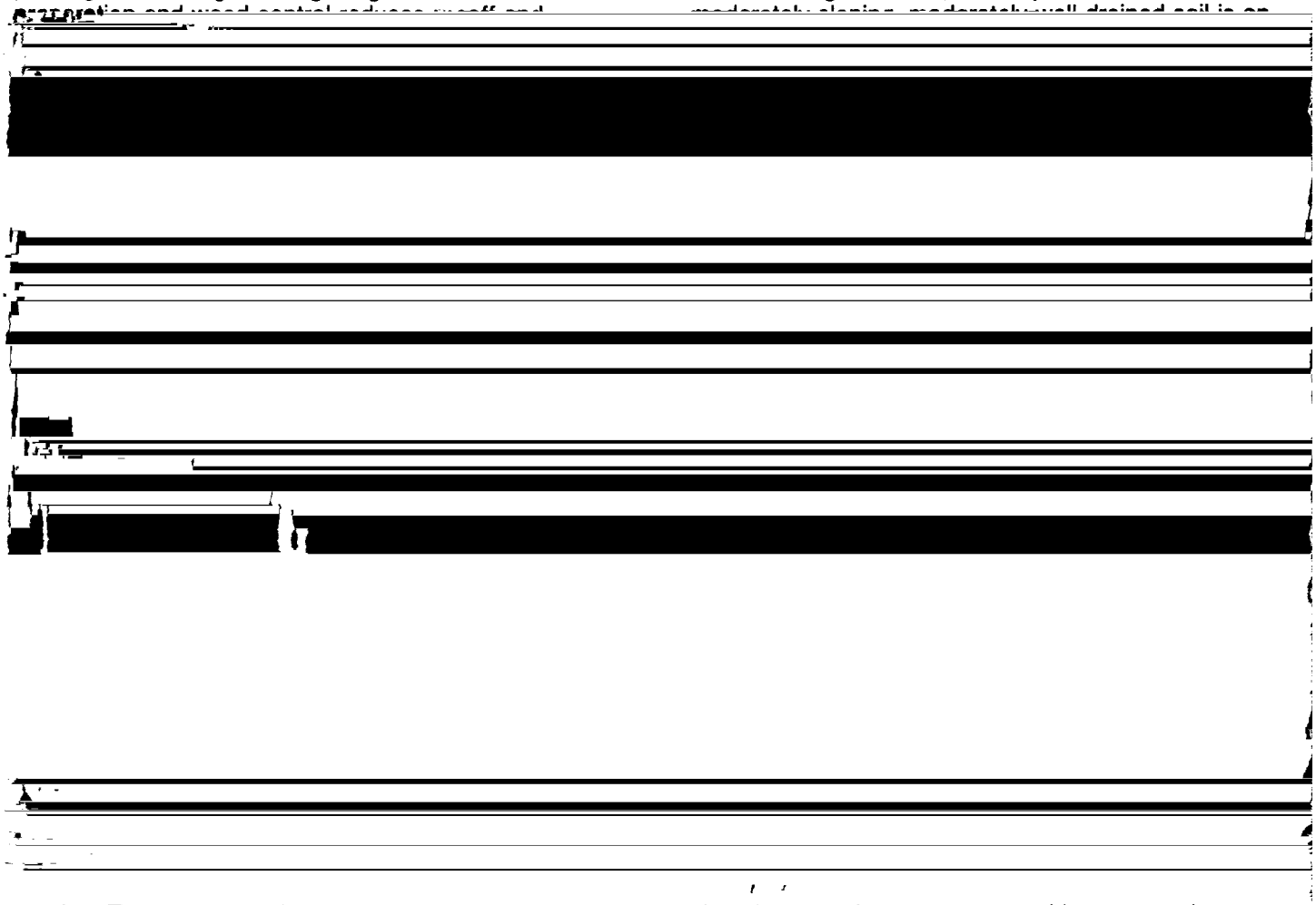
Typically, the surface layer is brown, strongly acid silt loam about 7 inches thick. The subsoil extends to a depth of about 60 inches or more. It is dark yellowish brown, strongly acid silt loam in the upper part and dark brown, strongly acid silty clay loam in the middle part. The lower part is a fragipan of dark brown silty clay loam and dark yellowish brown silt loam.

Included with this soil in mapping are a few small areas of Coteau and Memphis soils. The somewhat poorly drained Coteau soils are in slightly depressional areas and at the heads of drainageways. The well drained Memphis soils are in slightly higher positions than the Loring soil. These soils do not have a fragipan. Also included on some of the foot slopes are a few small outcrops of clayey soil material. The included soils make up about 10 percent of the map unit.

This Loring soil has medium fertility. Water runs off the surface at a medium rate. Water and air move through this soil at a moderate rate above the fragipan and a slow rate in the fragipan. A seasonal high water table is at a depth of about 2 to 3 feet below the surface during

plowing or chiseling. Limiting tillage for seedbed

Lr—Loring silt loam, 5 to 8 percent slopes. This



erosion. Terraces, diversions, and grassed waterways help prevent erosion. Drop structures placed in grassed waterways help prevent gullying. All tillage should be on the contour or across the slope. Maintaining crop residue on or near the surface reduces runoff and helps to maintain soil tilth and organic matter content. Most crops respond well to fertilizer. Lime is generally needed. Where water of suitable quality is available, supplemental irrigation can prevent damage to crops during dry periods of some years.

This Loring soil is well suited to pasture. Droughtiness is the main limitation. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, ryegrass, and ball clover. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Seedbed preparation should be on the contour or across the slope where practical. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to the production of cherrybark oak, sweetgum, and loblolly pine. The potential production is high. Competing plants can be controlled

side slopes and narrow, convex ridgetops on the terrace uplands.

Typically, the surface layer is brown, strongly acid silt loam about 6 inches thick. The subsoil is dark yellowish brown, very strongly acid silty clay loam in the upper part and dark brown, very strongly acid silty clay loam in the middle part. The lower part is a fragipan of dark brown, mottled, very strongly acid silt loam and silty clay loam. The underlying material is dark brown, medium acid silt loam.

Included with this soil in mapping are a few small areas of Memphis soils and a few small areas of Loring soils that have had most of their topsoil removed by erosion. The well drained Memphis soils are in slightly higher positions than the Loring soil, and they do not have a fragipan. Also included on some of the lower side slopes are a few small outcrops of clayey or sandy soil materials. The included soils make up about 10 percent of the map unit.

This Loring soil has medium fertility. Water runs off the surface at a rapid rate. Water and air move through this soil at a moderate rate above the fragipan and a slow

erosion. Sweet potatoes is the main crop; but soybeans, cotton, corn, and vegetables are also suitable crops. In places irregular slopes hinder tillage operations. The Loring soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. Plowpans develop easily but can be broken up by deep plowing or chiseling. Limiting tillage for seedbed preparation and weed control reduces runoff and erosion. The risk of sheet and rill erosion on the steeper slopes can be reduced by constructing gradient terraces and farming on the contour. Diversions and grassed waterways also help to control erosion. Drop structures can be installed in grassed waterways to control gullying. Crop residue left on or near the surface helps to conserve moisture, maintain tilth, and control erosion. Most crops respond well to fertilizer. Lime is generally

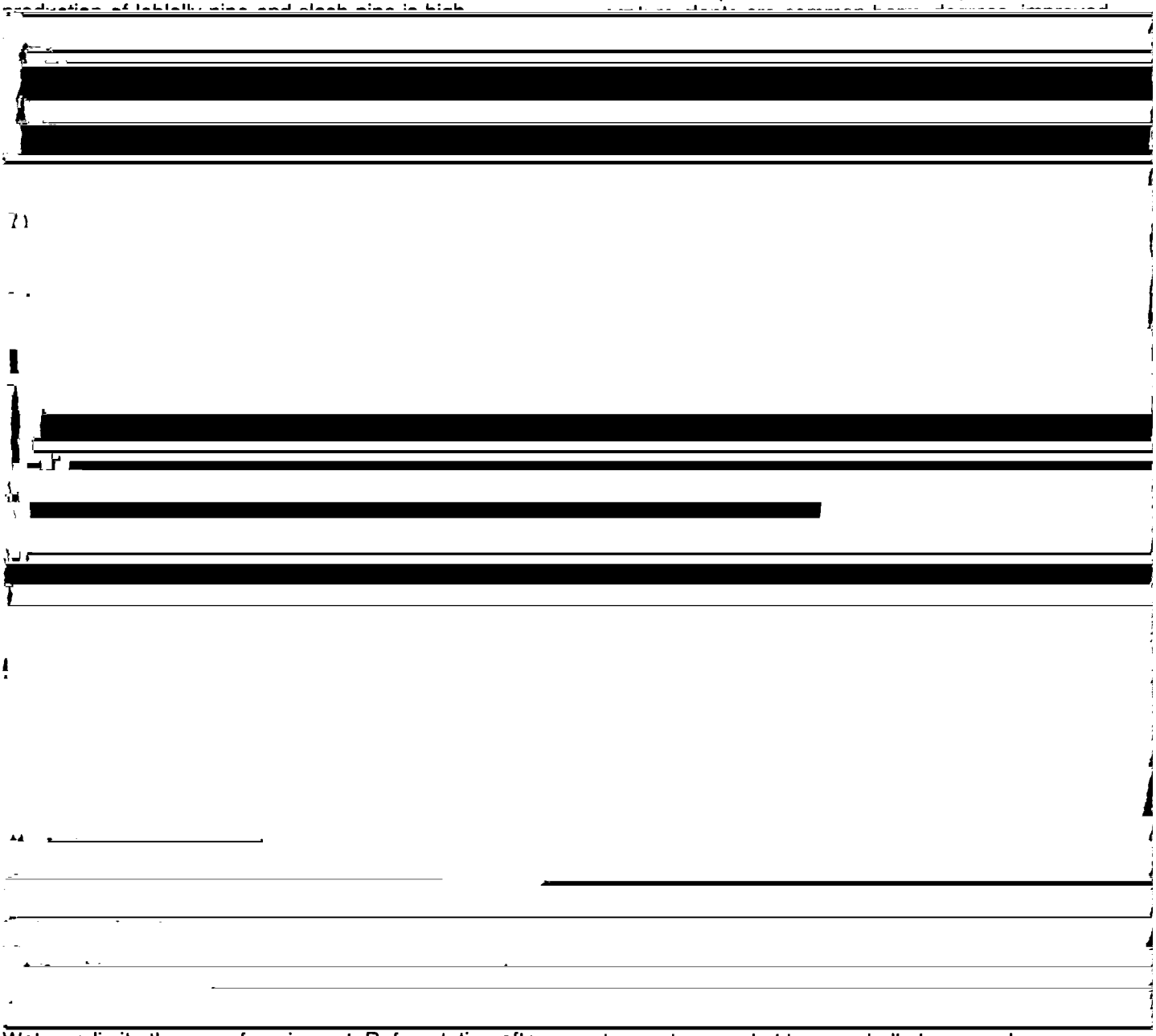
depth of about 16 inches. The subsoil is mottled, grayish brown, yellowish brown, and red, strongly acid silty clay loam in the upper part and grayish brown, mottled, medium acid silty clay loam in the lower part. The underlying material to a depth of about 60 inches is mottled, yellowish brown, pale brown, and red, slightly acid loam.

Included with this soil in mapping are a few small areas of Crowley and Mowata soils. The Crowley soils are in higher positions and are more clayey in the subsoil than the Mamou soil. The poorly drained Mowata soils are in lower positions and have a grayer subsurface layer and subsoil than the Mamou soil. The included soils make up about 10 percent of the map unit.

This Mamou soil has low fertility. Water runs off the

pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to woodland. The potential production of loblolly pine and slash pine is high.



Wetness limits the use of equipment. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is poorly suited to recreational development. It is limited mainly by wetness. Good drainage should be provided for intensively used areas, such as playgrounds and camp areas. Plant cover can be maintained by fertilizing and by controlling traffic.

This soil is well suited to use as habitat for ducks, geese, rabbits, quail, doves, and numerous small

cropping system. Most crops respond well to fertilizer. Lime is generally needed.

This Memphis soil is well suited to pasture. Suitable

bermudagrass, bahiagrass, ball clover, and ryegrass. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to woodland. The potential production of cherrybark oak, loblolly pine, and sweetgum is very high. This soil has few limitations for use and management. Competing plants can be controlled by proper site preparation and by spraying,

and have a fragipan. The included soils make up about 10 percent of the map unit.

This Memphis soil has medium fertility. Water runs off the surface at a medium rate. Water and air move through this soil at a moderate rate. The seasonal high water table is more than 6 feet below the surface. This soil dries quickly after rains. Plants are damaged by lack of water during dry periods in summer and fall of some years. This soil has low shrink-swell potential.

Most areas of this soil are used for cultivated crops or as pasture. A few areas are used for homesites.

This soil is well suited to cultivated crops. It is limited [illegible]

Streets and roads should be designed to offset the limited ability of the soil to support a load.

This soil is well suited to recreational development. It is limited mainly by erosion where ground cover is absent. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Plant cover can be maintained by fertilizing and by controlling traffic. Cuts and fills should be seeded or mulched.

This soil is well suited to use as habitat for doves, quail, rabbits, and small furbearing animals. Habitat for wildlife can be improved by maintaining the existing plant [illegible]

to control erosion. Drop structures can be installed in drainageways on the terrace uplands and on the

and the severe hazard of erosion. Preserving the existing plant cover during construction helps to control erosion. Establishing and maintaining plant cover can be achieved through proper fertilizing, seeding, mulching, and shaping of the slopes. The steepness of slope is a

fluctuates between a depth of about 2 feet and the soil surface during December through April. This soil has high shrink-swell potential. Plants are damaged by lack of water during dry periods in summer and fall of some years.

material that has low shrink-swell potential. Mulching, fertilizing, and irrigation are needed to establish lawn grasses and other small-seeded plants.

This soil is poorly suited to recreational development. It is limited mainly by wetness and very slow permeability. Good drainage should be provided for most recreational uses. Plant cover can be maintained by fertilizing and by controlling traffic.

This soil is well suited to use as habitat for ducks, rabbits, quail, doves, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

This Mowata soil is in capability subclass IIIw and in woodland group 2w.

MU—Muskogee-Loring association, 8 to 20 percent slopes, severely eroded. This association consists of strongly sloping to moderately steep, eroded, moderately well drained soils. These soils are on the escarpment between the terrace uplands and the alluvial plain and on short side slopes along major entrenched drainageways on the terrace uplands. The Muskogee soil makes up about 50 percent of the association and the Loring soil about 40 percent. The Muskogee soil is in the strongly sloping areas, and the Loring soils are in the moderately steep areas. Areas of both the Muskogee and Loring soils are individually large enough to be separated in mapping, but because the steepness of the slopes so limits the use and management of the soils,

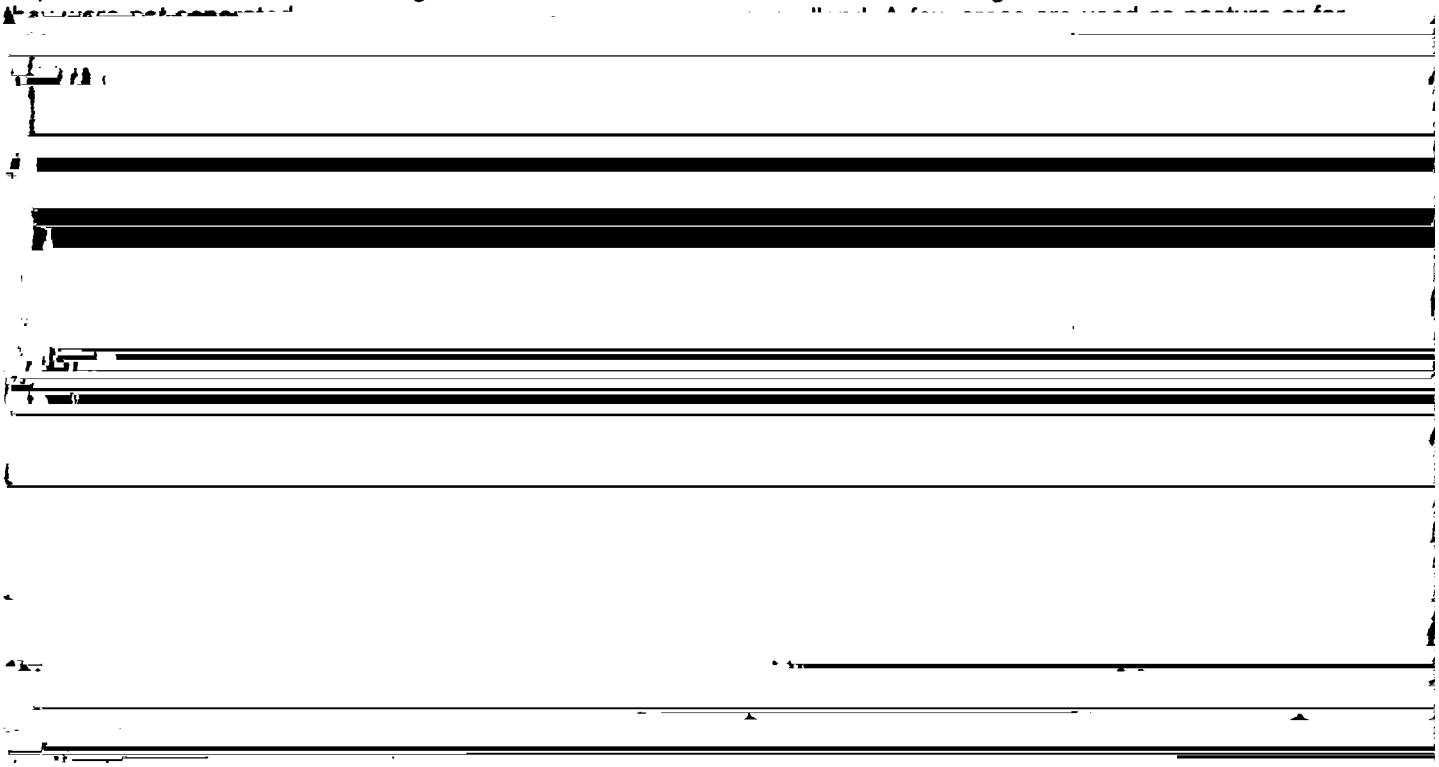
in summer and fall of most years. This soil has high shrink-swell potential.

Typically, the Loring soil has a surface layer of brown, strongly acid silt loam about 6 inches thick. The subsoil is dark brown, strongly acid silt loam in the upper part and dark yellowish brown, strongly acid silt loam in the middle part. In the lower part, it is a fragipan of dark brown and yellowish brown, mottled, strongly acid silt loam and silty clay loam. The underlying material to a depth of about 60 inches is dark yellowish brown, mottled, medium acid silt loam.

The Loring soil has medium fertility. Runoff is rapid, and the hazard of water erosion is severe. Water and air move through this soil at a moderate rate above the fragipan and slowly in the fragipan. A seasonal high water table is at a depth of about 2 to 3 feet during December through March. It is perched above the fragipan. This soil dries quickly after rains. Plants are damaged by lack of water during dry periods in summer and fall of most years. Effective root depth is about 22 inches. Plant root development and the available water capacity are limited by the fragipan. This soil has low shrink-swell potential.

Included with these soils in mapping are a few small areas of Memphis soils. The well drained Memphis soils are on the upper parts of the slopes. They are loamy throughout and do not have a fragipan. Also included on some of the lower side slopes are a few small outcrops of clayey and sandy soil materials. The included soils make up about 10 percent of the map unit.

Most of the acreage of this association is used as



These soils are generally not suited to cultivated Coteau soils are in slightly higher positions and have a

[redacted]

shallow ditches and proper grading. Septic tank absorption fields do not function properly during rainy periods because of wetness and slow permeability. The effects of the soil permeability and the wetness can be minimized by increasing the size of the absorption field. Self-contained sewage disposal units or lagoons can be used to dispose of sewage properly. Buildings and roads can be designed to offset the effects of shrinking and swelling. Mulching, fertilizing, and irrigating help to establish lawn grasses and other small-seeded plants.

This soil is moderately well suited to recreational development. It is limited mainly by wetness and slow permeability. Good drainage should be provided for intensively used areas, such as playgrounds and camp areas. Plant cover can be maintained by fertilizing and by controlling traffic.

This soil is well suited to use as habitat for ducks, geese, rabbits, quail, doves, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover, or by propagating the natural growth of desirable plants.

This Patoutville soil is in capability subclass IIw and in woodland group 2w.

Pb—Patoutville silt loam, 1 to 3 percent slopes. This very gently sloping, somewhat poorly drained soil is on long, narrow side slopes on the terrace uplands.

Typically, the surface layer is brown, medium acid silt loam about 6 inches thick. The subsoil to a depth of about 60 inches is dark grayish brown, mottled, medium acid silty clay loam in the upper part; grayish brown, mottled, slightly acid silty clay loam in the middle part; and light brownish gray, mottled, slightly acid silt loam in the lower part.

Included with this soil in mapping are a few small areas of Frost soils. The poorly drained Frost soils are in drainageways and have a subsurface layer that tongues into the subsoil. The included soils make up about 5 percent of the map unit.

This Patoutville soil has medium fertility. Water runs off the surface at a medium rate. Water and air move through this soil slowly. A seasonal high water table fluctuates between a depth of about 2 and 5 feet below the surface during December through May. Plants are damaged by lack of water during dry periods in summer and fall of some years. This soil has moderate shrink-swell potential.

Most areas of this soil are used for cultivated crops. A few areas are used as pasture or for homesites.

This soil is well suited to cultivated crops. It is limited mainly by slope and the moderate hazard of erosion. Soybeans is the main crop; but corn, cotton, and sweet potatoes are also suitable crops. The Patoutville soil is friable and easy to keep in good tilth. It can be worked over a wide range of moisture content. All tillage should be on the contour or across the slope. Limiting tillage for seedbed preparation and weed control reduces runoff and erosion. Crusting of the surface and compaction of the soil can be reduced by returning the crop residue to the soil and by minimum tillage. Most crops respond well to fertilizer. Lime is generally needed.

This Patoutville soil is well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, white clover, vetch, and ryegrass. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

This soil is well suited to woodland. The potential production of loblolly pine and slash pine is high. This soil has moderate equipment use limitations because of wetness. Competing plants can be controlled by proper site preparation and by spraying, cutting, or girdling to eliminate unwanted weeds, brush, or trees. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is moderately well suited to urban development. It is limited mainly by wetness and moderate shrink-swell potential. Excess water can be removed by shallow ditches and proper grading. The hazard of erosion is increased if the soil is left exposed during site development. Preserving the existing plant cover during construction helps to control erosion. Establishing and maintaining plant cover can be achieved through proper fertilizing, seeding, mulching, and by shaping of the slopes. Septic tank absorption fields do not function properly during rainy periods because of wetness and slow permeability. Self-contained sewage disposal units can be used to dispose of sewage properly. Buildings and roads should be designed to offset the effects of shrinking and swelling.

This soil is moderately well suited to recreational development. Wetness, slow permeability, and slope are the main limitations. Erosion and sedimentation can be controlled and the beauty of the area enhanced by maintaining adequate plant cover. Plant cover can be maintained by fertilizing and by controlling traffic. Good drainage should be provided for intensively used areas, such as playgrounds and camp areas.

This soil is well suited to use as habitat for quail, doves, rabbits, and numerous small furbearing animals. Habitat for wildlife can be improved by planting appropriate vegetation, by maintaining the existing plant cover or by propagating the natural growth of desirable plants.

This Patoutville soil is in capability subclass IIe and in woodland group 2w.

Pc—Patoutville-Crowley complex. These nearly level, somewhat poorly drained soils are on the terrace uplands. The Patoutville soil is on low ridges, and the Crowley soil is on flats between the ridges. The areas typically contain about 60 percent Patoutville soil and

about 30 percent Crowley soil. The soils of this complex are so intricately intermingled that it was not practical to map them separately at the scale selected for mapping. Slopes range from less than 1 percent on the flats to about 2 percent on the ridges.

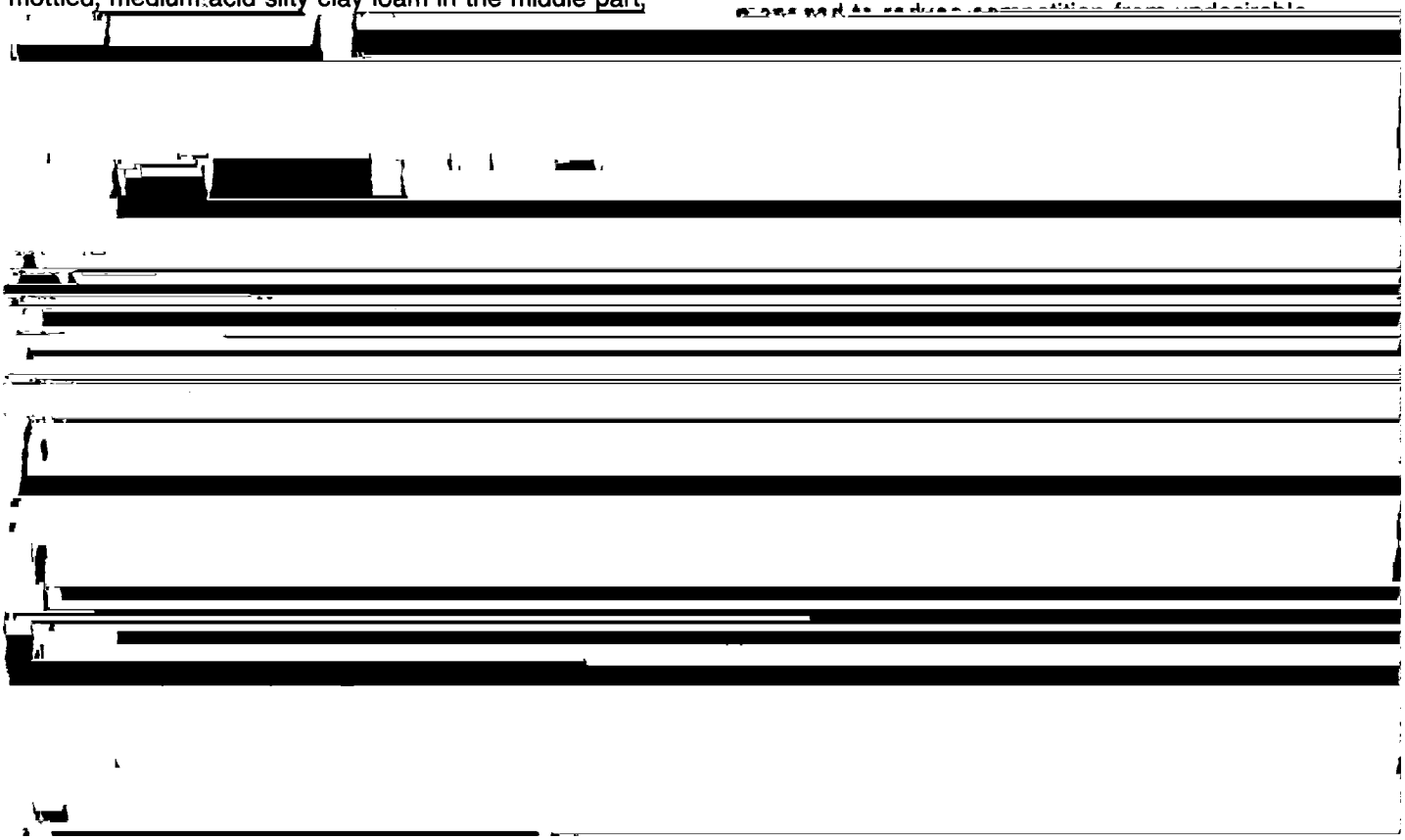
Typically, the Patoutville soil has a surface layer of dark grayish brown, slightly acid silt loam about 6 inches thick. The subsurface layer is grayish brown, mottled, medium acid silt loam to a depth of about 11 inches. The subsoil to a depth of about 60 inches is grayish brown, mottled, medium acid silty clay loam in the upper part; grayish brown, mottled, slightly acid silty clay loam in the middle part; and light brownish gray, mottled, neutral silt loam in the lower part.

This Patoutville soil has medium fertility. Water runs off the surface slowly. Water and air move through this soil slowly. A seasonal high water table fluctuates between a depth of about 2 and 5 feet below the surface during December through May. Plants are damaged by lack of water during dry periods in summer and fall of some years. This soil has moderate shrink-swell potential.

Typically, the Crowley soil has a surface layer of dark grayish brown, strongly acid silt loam about 6 inches thick. The subsurface layer is gray, mottled, very strongly acid silt loam to a depth of about 16 inches. The subsoil to a depth of about 60 inches is dark gray, mottled, strongly acid silty clay in the upper part; grayish brown, mottled, medium acid silty clay loam in the middle part; minimum tillage. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Land grading and smoothing improve surface drainage, allow more uniform application of irrigation water, and permit more efficient use of farm equipment. Pipe or other drop structures should be installed in drainage ditches to control the water level in rice fields and to prevent excessive erosion of ditches. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system. Most crops respond well to fertilizer. Lime is generally needed.

These soils are well suited to pasture. The main suitable pasture plants are common bermudagrass, improved bermudagrass, bahiagrass, white clover, vetch, and ryegrass. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for optimum growth of grasses and legumes.

These soils are well suited to woodland. The potential production of loblolly pine and slash pine is high. The main concerns in woodland use and management are equipment use limitations and seedling mortality because of wetness. Competing plants can be controlled by proper site preparation and by spraying, cutting, or girdling to eliminate unwanted weeds, brush, or trees. Reforestation after harvesting must be carefully



vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

This complex is in capability subclass IIIw and in woodland group 2w.

Pr—Perry clay, frequently flooded. This level, poorly drained soil is in back swamps on the Red River alluvial plain. It is subject to frequent flooding for brief to very long periods. Slopes are less than 1 percent.

Typically, the surface layer is very dark grayish brown, strongly acid clay about 7 inches thick. The subsoil, to a depth of about 27 inches, is dark gray, mottled, strongly acid and medium acid clay. The next layer, to a depth of about 38 inches, is reddish brown, mottled, slightly acid clay. The underlying material to a depth of about 60 inches is reddish brown, mottled, neutral clay.

Included with this soil in mapping are a few small areas of Lebeau soils. The Lebeau soils are in higher positions and are more reddish colored in the upper part of the subsoil than the Perry soil. The included soils make up about 5 percent of the map unit.

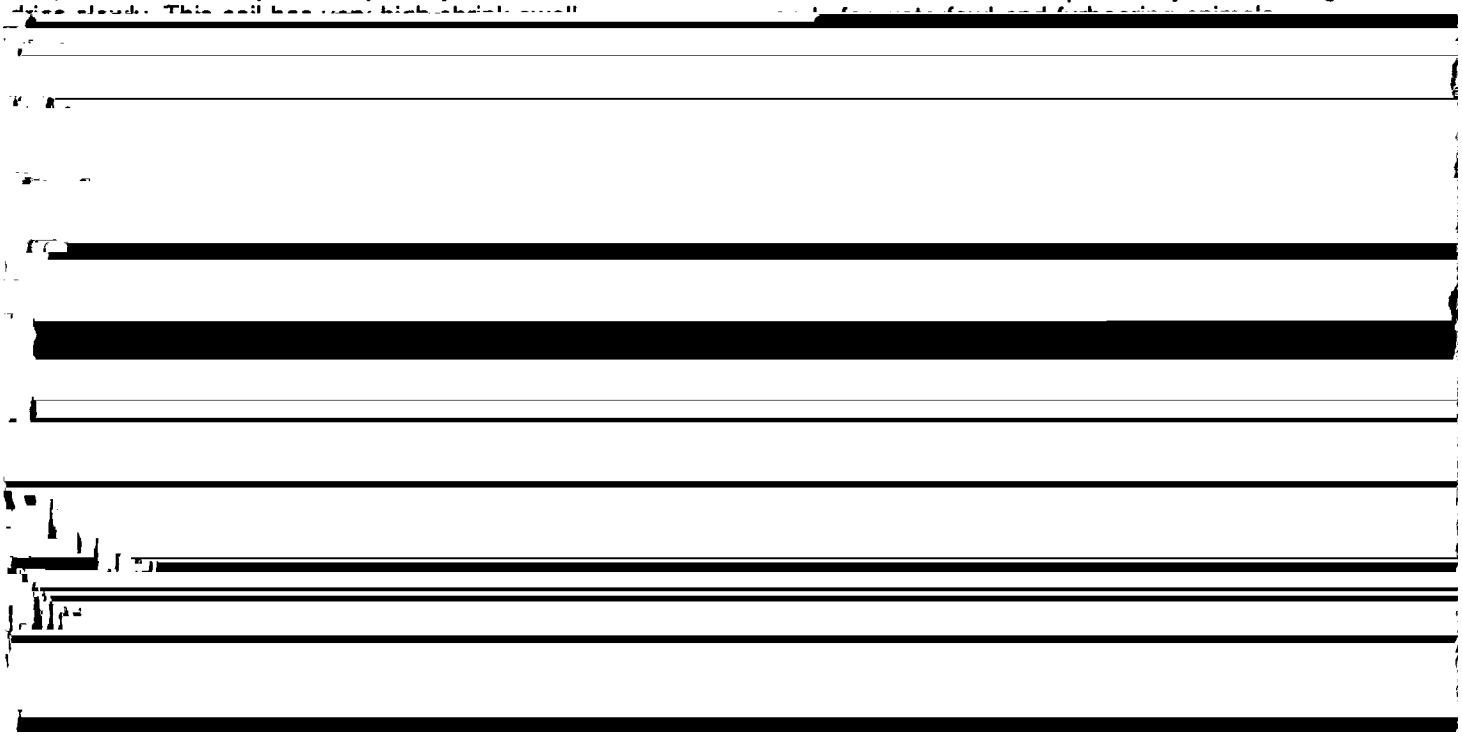
This Perry soil has medium fertility. Water runs off the surface very slowly and ponds in low places for long periods after heavy rains. Water and air move through this soil very slowly. A seasonal high water table fluctuates between a depth of about 2 feet and the soil surface during December through April. This soil floods more frequently than 2 times during each 5 year period (41 to 100 times each 100 years) between June 1 and November 30. Flood water may remain on the soil longer than a month, and the water is typically 1 foot to 3 feet deep. The surface layer is very sticky when wet and

good condition. During flood periods, cattle should be moved to adjacent protected areas or to pastures at higher elevations. Generally, it is not practical to apply high rates of fertilizer because of the overflow hazard.

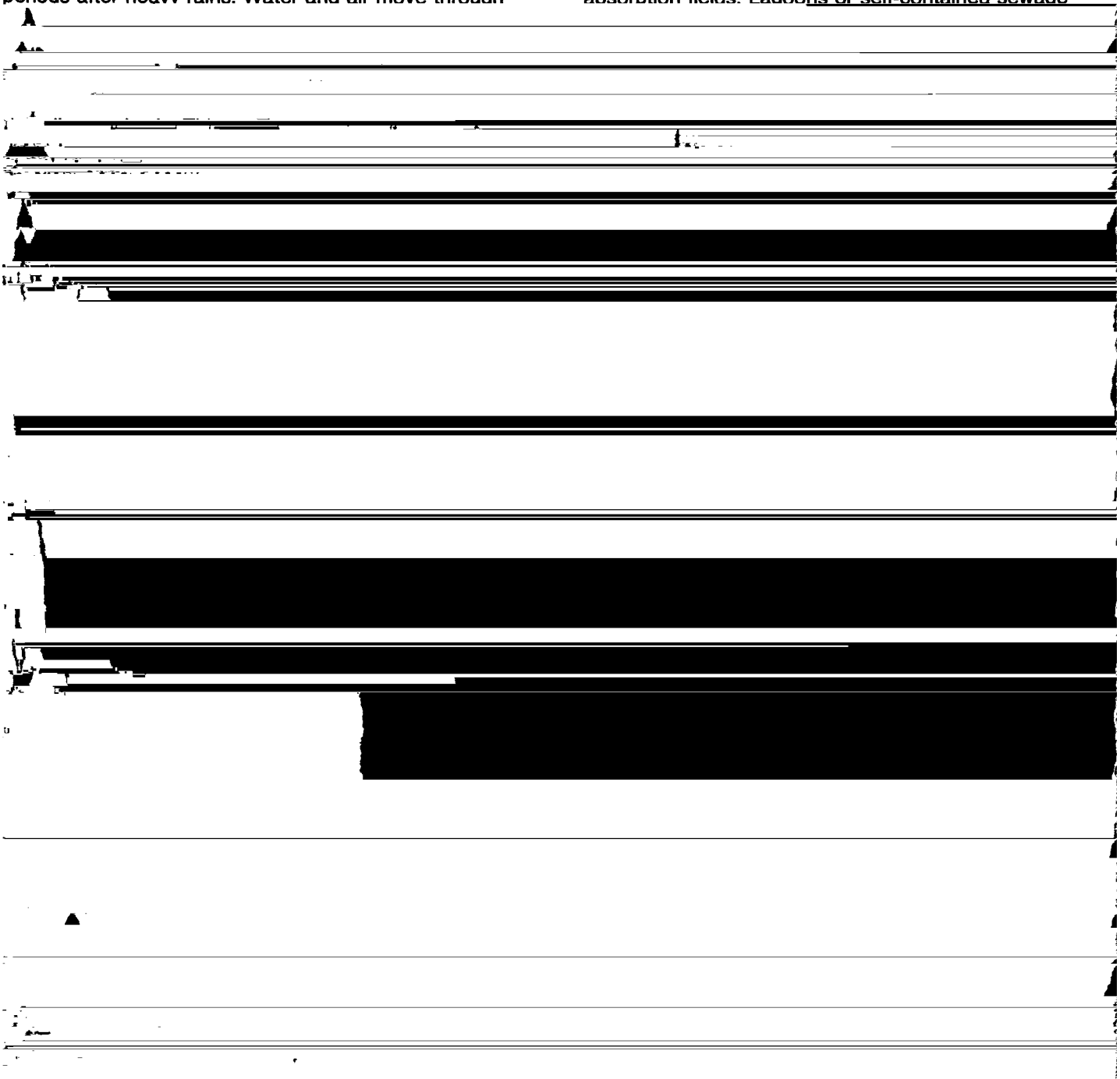
This soil is generally not suited to cultivated crops because of the hazard of flooding. If adequate flood control is maintained through a system of levees, ditches, and pumps, however, this soil is moderately well suited to the production of rice, soybeans, and grain sorghum. This soil is also limited by wetness and poor tilth. The soils can be worked only within a narrow range of moisture content. Land grading and smoothing improve surface drainage, allow more uniform application of irrigation water, and permit more efficient use of farm equipment. Tilth and fertility can be improved by returning crop residue to the soils. The organic matter content can be maintained by using all crop residue, plowing under cover crops and using a suitable cropping system. Most crops respond well to fertilizer.

This soil is not suited to most urban and recreational uses. The hazard of flooding is generally severe. Major flood control structures, along with extensive local drainage systems, are needed to protect this soil from flooding. Roads should be located above the expected flood level and designed to offset the limited ability of the soil to support a load.

This soil is moderately well suited to use as habitat for deer, squirrels, ducks, numerous small furbearing animals, crawfish, and wetland wildlife. Habitat for wildlife can be improved by selectively harvesting timber to leave large den and mast-producing trees. Habitat for wetland wildlife can be improved by constructing shallow



periods after heavy rains. Water and air move through absorption fields. Lagoons or self-contained sewage



on an annual basis and during the cropping season. Flooding can occur, however, during unusually prolonged, high intensity storms. A seasonal high water table fluctuates between a depth of about 2 feet and the soil surface during December through April. The surface layer is very sticky when wet and dries slowly. This soil has very high shrink-swell potential. An adequate supply of water is available to plants in most years.

Most of the acreage of this soil is in woodland and

properly. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. Drainage is needed for best results with most lawn grasses, shade trees, ornamental trees, shrubs, vines, and vegetable gardens. Roads and streets should be designed to offset the limited ability of the soil to support a load.

This soil is poorly suited to recreational development.

Most of the acreage of this soil is in woodland. A small acreage is used as cropland or pasture.

This soil is well suited to woodland. The potential production of eastern cottonwood, Nuttall oak, and green ash is moderately high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and flooding. Trees should be water tolerant, and they should be planted or harvested during dry periods. Conventional methods of harvesting timber generally can be used, but their use may be limited during rainy periods, generally from December to June. Reforestation after harvesting must be carefully managed to reduce competition from undesirable understory plants.

This soil is poorly suited to cultivated crops. It is limited mainly by wetness, poor tilth, and flooding. Soybeans, rice, and grain sorghum are the main crops. Flooding can be controlled by the use of levees, dikes, and pumps. This soil is sticky when wet and hard when dry, and it becomes cloddy if tilled when too wet or too dry. It can be worked only within a narrow range of moisture content. Proper row arrangement, field ditches, and suitable outlets are needed to remove excess surface water. Land grading and smoothing improve surface drainage, allow more uniform application of irrigation water, and permit more efficient use of farm equipment. Proper irrigation systems should be used for the production of rice. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system.

This Sharkey soil is moderately well suited to pasture. Wetness and flooding are the main limitations. The main suitable pasture plant is common bermudagrass. Excessive water on the surface can be removed by shallow ditches if suitable outlets are available. Wetness limits the choice of plants and the period of grazing. During flood periods, cattle should be moved to adjacent protected areas or to pastures at higher elevations. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertility generally is sufficient for sustained production of high quality nonirrigated pasture.

This soil is poorly suited to urban and recreational development. It is not suited to building sites. The main limitations are wetness, very high shrink-swell potential, and the hazard of flooding. Major flood control structures, along with extensive local drainage systems, are needed to protect this soil from flooding. The effects of shrinking and swelling can be minimized by using proper engineering designs and by backfilling with material that has low shrink-swell potential. Roads and streets should be located above the expected flood level.

wildlife can be improved by selectively harvesting timber to leave large den and mast-producing trees. Habitat for wetland wildlife can be improved by constructing shallow ponds for waterfowl and furbearing animals.

This Sharkey soil is in capability subclass IVw and in woodland group 3w.

Sp—Sharkey clay, frequently flooded. This level, poorly drained soil is on the lower parts of natural levees of distributary channels of the Mississippi River. It is subject to frequent flooding for brief to very long periods. Slopes are less than 1 percent.

Typically, the surface layer is dark grayish brown, medium acid clay about 7 inches thick. The subsoil is gray, mottled, slightly acid clay in the upper part; dark gray, mottled, mildly alkaline clay in the middle part; and dark gray, mottled, moderately alkaline clay in the lower part. The underlying material to a depth of about 60 inches is gray, mottled, moderately alkaline clay.

Included with this soil in mapping are a few small areas of Fausse and Tensas soils. The Fausse soils are in depressional areas and remain wet most of the time. The Tensas soils are in higher positions and contain less clay in the subsoil than the Sharkey soil. The included soils make up about 10 percent of the map unit.

This Sharkey soil has high fertility. Water runs off the surface very slowly and ponds in low places for long periods after heavy rains. Water and air move through this soil very slowly. A seasonal high water table fluctuates between a depth of about 2 feet and the soil surface during December through April. This soil may flood more frequently than 2 times during each 5 year period (41 to 100 times in each 100 years) between June 1 and November 30. Flood water can remain on the soil longer than 3 months. The flood water is typically 1 foot to 3 feet deep, and it may exceed 8 feet in places. The surface layer of this soil is very sticky when wet and dries slowly. This soil has very high shrink-swell potential. A surplus supply of water is available to plants in most years.

Most of the acreage of this soil is in woodland. A small acreage is used as cropland or pasture.

This soil is moderately well suited to woodland. The potential production of eastern cottonwood, green ash, and overcup oak is moderately high. The main concerns in producing and harvesting timber are equipment use limitations and seedling mortality because of wetness and flooding. Trees should be water tolerant, and they should be planted or harvested during dry periods. Conventional methods of harvesting timber generally can be used, but their use will be limited during rainy periods, generally from December to June. Reforestation after

Figure 6.—This bottom land hardwood forest on an area of Sharkey clay, occasionally flooded, provides good habitat for wildlife.

sorghum are suitable crops. This soil is also limited by wetness and poor tilth. The Sharkey soil is sticky when wet and hard when dry, and it becomes cloddy if tilled when too wet or too dry. It can be worked only within a narrow range of moisture content. Land grading and smoothing improve surface drainage, allow more uniform application of irrigation water, and permit more efficient use of farm equipment. Proper irrigation systems should be used for the production of rice. Flooding can be controlled by the use of levees, dikes, and pumps. The organic matter content can be maintained by using all crop residue, plowing under cover crops, and using a suitable cropping system.

This soil is poorly suited to pasture. Wetness and the hazard of flooding are the main limitations. The main suitable pasture plant is common bermudagrass. Excessive water on the surface can be removed by shallow ditches if suitable outlets are available. Wetness limits the choice of plants and the period of grazing. During flood periods, cattle should be moved to adjacent protected areas or to pastures at higher elevations. Proper stocking rates, pasture rotation, and restricted

grazing during wet periods help keep the pasture and the soil in good condition. Fertility generally is sufficient for sustained production of high quality nonirrigated pasture.

thick. The subsoil is dark gray, mottled, slightly acid clay in the upper part; dark gray, mottled, mildly alkaline clay in the middle part; and olive gray, mottled, moderately

improved bermudagrass, dallisgrass, tall fescue, ryegrass, and white clover. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. The use of equipment is limited by wetness in the swales after rains. Fertilizer is needed for optimum growth of grasses and lime is generally

subsoil is gray, mottled, strongly acid silty clay and silt loam in the upper part; gray, mottled, very strongly acid silty clay in the middle part; and gray, mottled, very strongly acid silty clay loam in the lower part. The underlying material to a depth of about 60 inches is light gray, mottled, very strongly acid silty clay loam.

These soils are moderately well suited to cultivated crops. They are limited mainly by wetness, low fertility, and potentially toxic levels of exchangeable aluminum. The main suitable crops are rice, sweet potatoes, and soybeans. Land smoothing and water leveling increase the effectiveness of flood irrigation and improve drainage. A drainage system is needed for most cultivated crops. Proper irrigation systems should be used for the production of rice. Returning all crop residue to the soil and using a cropping system that includes grasses, legumes, or grass-legume mixtures help to maintain fertility and tilth. Most crops respond to fertilizer and liming programs designed to overcome the low fertility and high and moderately high levels of aluminum.

These soils are moderately well suited to pasture. Wetness and low fertility are the main limitations. The main suitable pasture plants are common bermudagrass, bahiagrass, ryegrass, vetch, and white clover. Wetness limits the choice of plants and the period of grazing. Proper stocking rates, pasture rotation, and restricted grazing during wet periods help keep the pasture and the soil in good condition. Fertilizer and lime are needed for

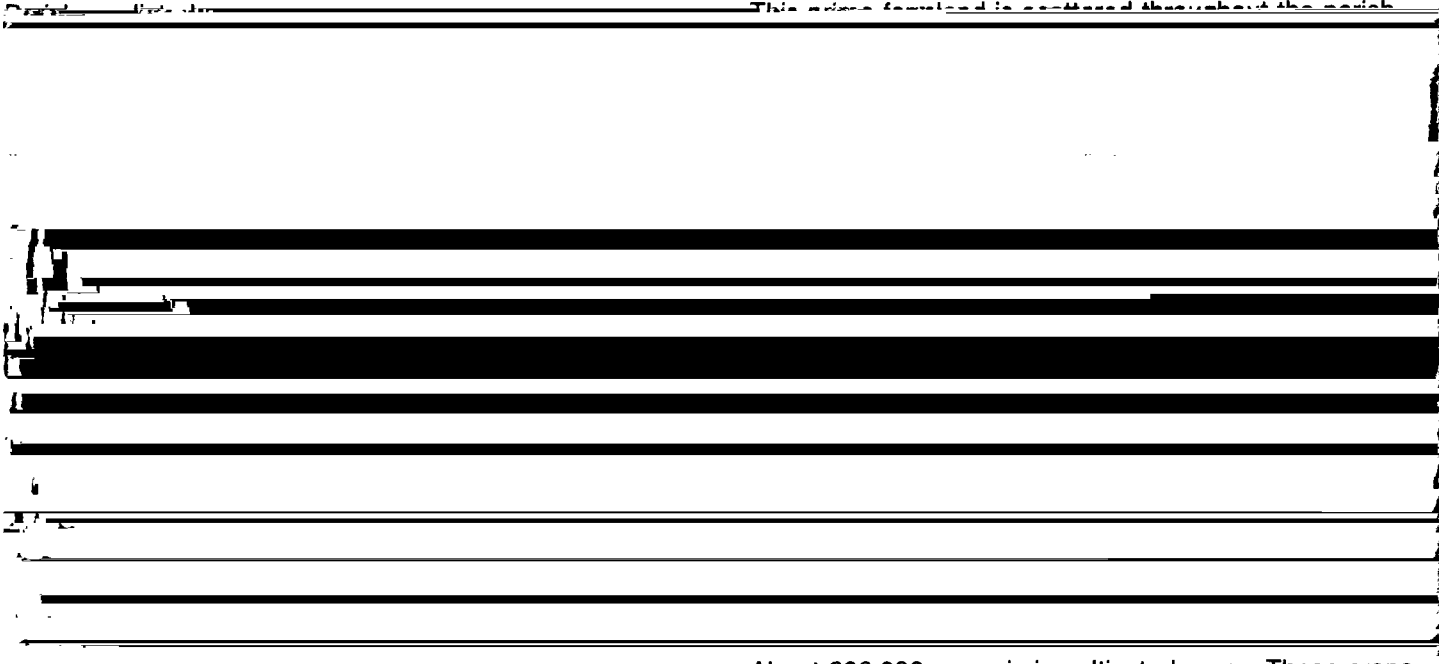
These soils are poorly suited to recreational development. They are limited mainly by wetness. Good drainage should be provided for intensively used areas, such as playgrounds and camp areas. Plant cover can be maintained by fertilizing and by controlling traffic.

These soils are well suited to use as habitat for deer, squirrels, rabbits, doves, quail, and numerous small furbearing animals. Habitat for wildlife can be improved by selectively harvesting timber to leave large den and mast-producing trees.

Prime Farmland

In this section, prime farmland is defined and discussed, and the prime farmland soils in St. Landry

About 468,000 acres, or 78 percent, of St. Landry Parish meets the soil requirements for prime farmland.



Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the nation's short- and long-range needs for food and fiber. The acreage of high-quality farmland is limited, and the U.S. Department of Agriculture recognizes that government at local, state, and federal levels, as well as individuals, must encourage and facilitate the wise use of our nation's prime farmland.

Prime farmland soils, as defined by the U.S. Department of Agriculture, are soils that are best suited to producing food, feed, forage, fiber, and oilseed crops. Such soils have properties that are favorable for the economic production of sustained high yields of crops. The soils need only to be treated and managed using acceptable farming methods. The moisture supply, of course, must be adequate, and the growing season has to be sufficiently long. Prime farmland soils produce the highest yields with minimal inputs of energy and economic resources. Farming these soils results in the least damage to the environment.

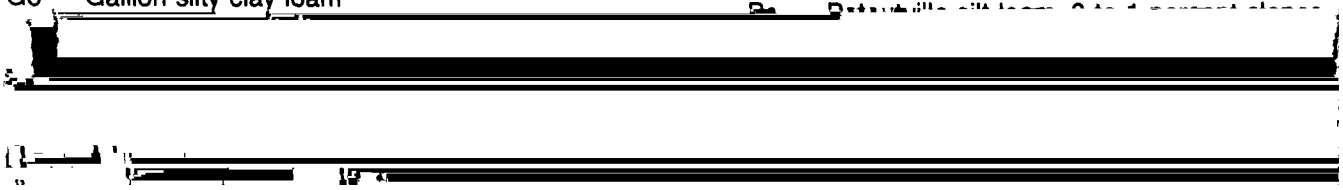
Prime farmland soils may presently be in use as cropland, pasture, or woodland, or they may be in other

About 309,000 acres is in cultivated crops. These crops, mainly soybeans, rice, corn, sweet potatoes, grain sorghum, and wheat, account for an estimated 85 percent of the parish's total agricultural income each year.

Because St. Landry Parish is primarily rural with only two large population centers, it has not lost a large percentage of its prime farmland to industrial or urban uses. In recent years, spurred on by the increasing demand for soybeans, large acreages of land only marginally suited to cultivation have been cleared or converted from pasture and placed in cultivation. These marginal lands generally are more erodible and difficult to cultivate or they flood more frequently than lands designated as prime farmland.

The following map units, or soils, make up prime farmland in St. Landry Parish. The location of each map unit is shown on the detailed soil maps at the back of this publication. The extent of each unit is given in table 5. The soil qualities that affect use and management are described in the section "Detailed Soil Map Units." This list does not constitute a recommendation for a particular land use.

De	Dundee silt loam
Df	Dundee silty clay loam
Dr	Dundee-Alligator complex, gently undulating
Ds	Dundee-Sharkey complex, gently undulating
Fo	Frost silt loam
Ga	Gallion silt loam
Go	Gallion silty clay loam
Le	Loreauville silt loam
Lp	Loring silt loam, 1 to 5 percent slopes
Ma	Mamou silt loam, 1 to 3 percent slopes
Mc	Memphis silt loam, 0 to 1 percent slopes
Md	Memphis silt loam, 1 to 5 percent slopes
Mt	Mowata silt loam
Pe	Patterson silt loam, 0 to 1 percent slopes



Use and Management of the Soils

This soil survey is an inventory and evaluation of the soils in the survey area. It can be used to adjust land uses to the limitations and potentials of natural resources and the environment. Also, it can help avoid soil-related failures in land uses.

In preparing a soil survey, soil scientists, conservationists, engineers, and others collect extensive field data about the nature and behavior characteristics of the soils. They collect data on erosion, droughtiness, flooding, and other factors that affect various soil uses and management. Field experience and collected data on soil properties and performance are used as a basis for predicting soil behavior.

Information in this section can be used to plan the use and management of soils for crops and pasture; as woodland; as sites for buildings, sanitary facilities, highways and other transportation systems, and parks and other recreation facilities; and for wildlife habitat. It can be used to identify the suitabilities and limitations of each soil for specific land uses and to help prevent construction failures caused by unfavorable soil properties.

Planners and others using soil survey information can evaluate the effect of specific land uses on productivity and on the environment in all or part of the survey area. The survey can help planners to maintain or create a land use pattern that is in harmony with nature.

Contractors can use this survey to locate sources of roadfill and topsoil. They can use it to identify areas where wetness or very firm soil layers can cause difficulty in excavation.

Health officials, highway officials, engineers, and others may also find this survey useful. The survey can help them plan the safe disposal of wastes and locate sites for pavements, sidewalks, campgrounds, playgrounds, lawns, and trees and shrubs.

Crops and Pasture

General management needed for crops and pasture is suggested in this section. The crops or pasture plants best suited to the soils, including some not commonly grown in the survey area, are identified; the system of land capability classification used by the Soil

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil under "Detailed Soil Map Units." Specific information can be obtained from the local office of the Soil Conservation Service or the Cooperative Extension Service.

About 357,000 acres of the 419,000 acres of cleared land in St. Landry Parish was used for crops and pasture in 1982. About 309,000 acres was used for row crops, mainly soybeans, and about 48,000 acres was used for pasture. The cropland acreage is increasing as bottom land hardwood forests are drained and cleared and pastures are converted to cropland.

Differences in crop suitability and management needs result from differences in soil characteristics, such as fertility level, erodibility, organic matter content, availability of water for plants, drainage, and flooding hazard. Cropping systems and soil tillage are also an important part of management. Each farm has a unique soil pattern; therefore, each has unique management problems. Some principles of farm management, however, apply to specific soils and certain crops. This section presents the general principles of management that can be applied widely to the soils of St. Landry Parish.

Pasture and hayland. Perennial grasses or legumes, or mixtures of these, are grown for pasture and hay. The mixtures generally consist of either a summer or a winter perennial grass and a suitable legume. In addition, many farmers seed small grain or ryegrass in the fall for winter and spring forage. Excess grass in summer is harvested as hay for the winter.

Common and improved bermudagrass and Pensacola bahiagrass are the summer perennials most commonly grown. Improved bermudagrass and Pensacola bahiagrass produce good quality forage. Tall fescue, the chief winter perennial grass, grows well only on soils that have a favorable moisture content. All of these grasses respond well to fertilizers, particularly nitrogen.

White clover, crimson clover, vetch, and wild winter peas are the most commonly grown legumes. All of these respond well to lime, particularly where grown on acid soils.

Proper grazing is essential for high quality forage,

Some farmers obtain additional forage by grazing the understory native plants in woodland. Forage volume varies with the woodland site, the condition of the native forage, and the density of the timber stand. Although most woodland is managed mainly for timber, substantial volumes of forage can be obtained from these areas under good management. Stocking rates and grazing periods need to be carefully managed for optimum forage production and to maintain an adequate cover of understory plants to control erosion.

Fertilization and liming. The soils of the parish range from strongly acid to mildly alkaline in the surface layer. Most soils that are used for crops are low in content of organic matter and in available nitrogen. Soils of the bottom lands, such as the Convent, Commerce, Latanier, [redacted]

[redacted]

for nonleguminous crops. Some of these soils may become deficient in potassium after many years of continuous row crops. Some soils of the bottom lands, such as the Dundee, Gallion, and Tensas soils, may need lime and a complete fertilizer for nonleguminous crops. Soils of the uplands generally need lime and a complete fertilizer for crops and pasture plants.

The amount of fertilizer needed depends on the kind of crop to be grown, on past cropping history, on the level of yield desired, and on the kind of soil. It should be determined on the basis of soil test results. Information and instructions on collecting and testing soil samples can be obtained from the Cooperative

crops. The soils in high positions on natural levees and those in upland areas are drained by a gravity drainage system consisting of row drains and field drains. The clayey soils in low positions on the natural levees are drained by a gravity drainage system consisting of a series of mains, or principal pipelines, and laterals, or smaller drains that branch out from them. The success of the system depends on the availability of adequate outlets. Another method used to improve drainage is land grading, or precisely leveling the fields to a uniform grade. Land grading improves surface drainage, eliminates cross ditches, and creates larger and more uniformly shaped fields that are more suited to the use of modern, multirow farm machinery. Deep cutting of soils that have unfavorable subsoil characteristics, [redacted]

Large areas of the parish are protected from flooding by levees of the Atchafalaya River; however, many acres are not protected from backwater flooding or are flooded by runoff from higher areas. Levees and pumps are needed to drain many of the flooded soils that are at low elevations.

Cropping system. A good cropping system includes a legume for nitrogen, a cultivated crop to aid in weed control, a deep-rooted crop to utilize substratum fertility and maintain substratum permeability, and a close-growing crop to help maintain organic matter content. The sequence of crops should keep the soil covered as much of the year as possible.

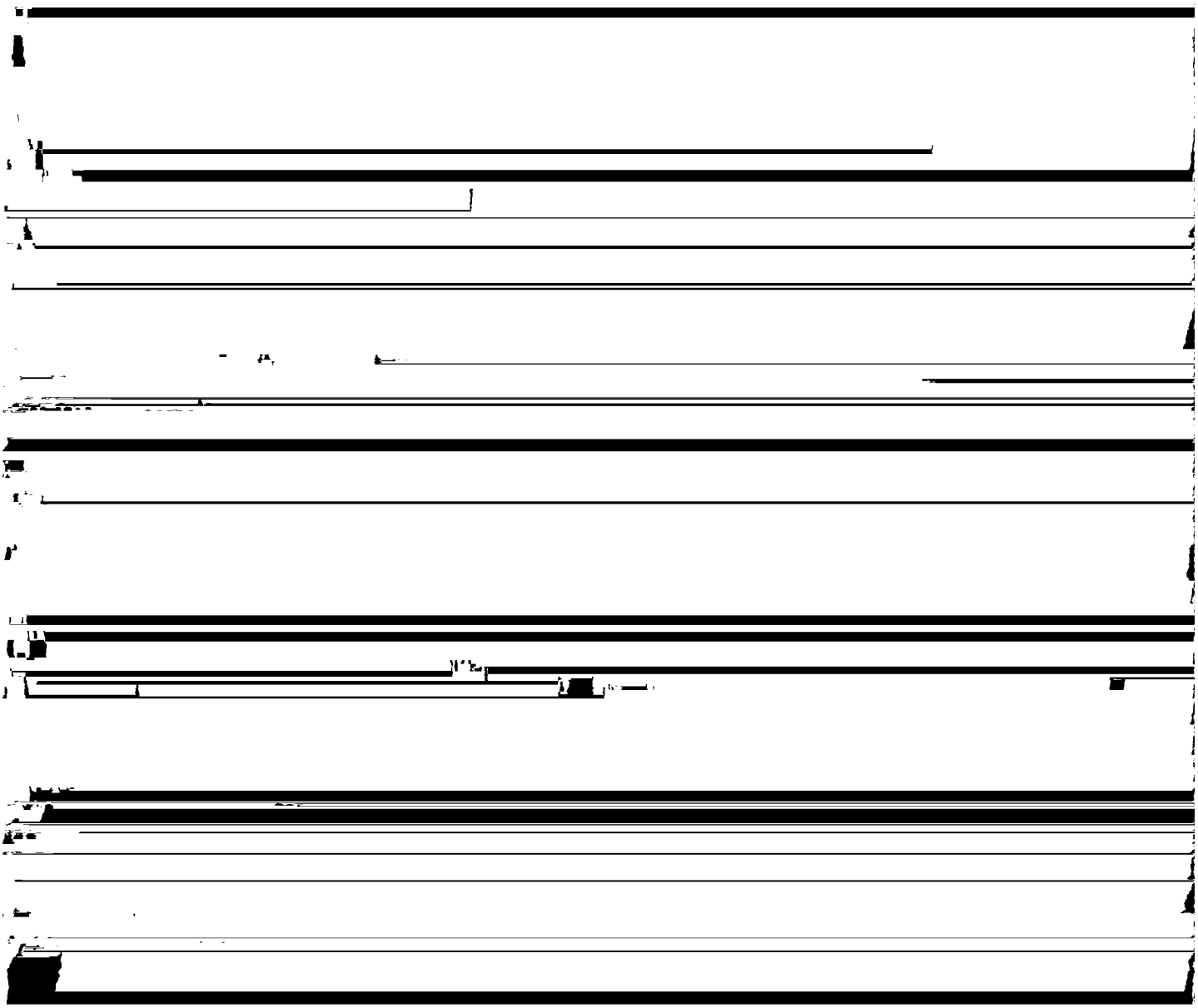
topography is level to nearly level. Nevertheless, sheet and gully erosion can be moderately severe in fallow-plowed fields, newly constructed drainage ditches, and on ridges in undulating areas. Some gullies tend to form at overfalls into drainage ditches. New drainage ditches should be seeded immediately after construction.

Cropping systems that maintain a plant cover on the soil for extended periods reduce soil erosion. Legume or grass cover crops reduce erosion, increase the content of organic matter and nitrogen in the soils, and improve tilth. Constructing terraces, diversions, and grassed waterways; using minimum tillage; farming on the contour; and using cropping systems that rotate grass or close-growing crops with row crops help to control [illegible]

office of the Soil Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

Land Capability Classification

Land capability classification shows, in a general way, the suitability of soils for use as cropland. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major, and generally expensive, landforming that would change slope, depth,



corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

There are no subclasses in class I because the soils of this class have few limitations. The soils in class V are subject to little or no erosion, but they have other limitations that restrict their use to pasture, rangeland, woodland, wildlife habitat, or recreation. Class V contains only the subclasses indicated by *w, s,* or *c*.

The capability classification of each map unit is given in the section "Detailed Soil Map Units."

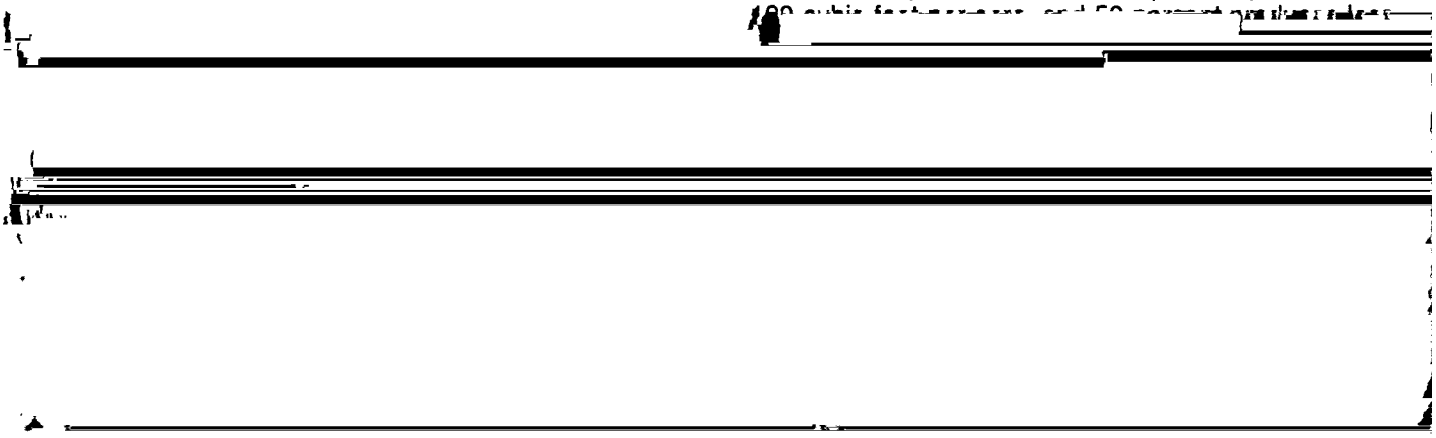
Woodland Management and Productivity

Carl V. Thompson, Jr., state staff forester, Soil Conservation Service, and Ernest G. Miller, Jr., district forester, Louisiana Office of Forestry, helped to prepare this section.

Hardwood forests once covered most of St. Landry

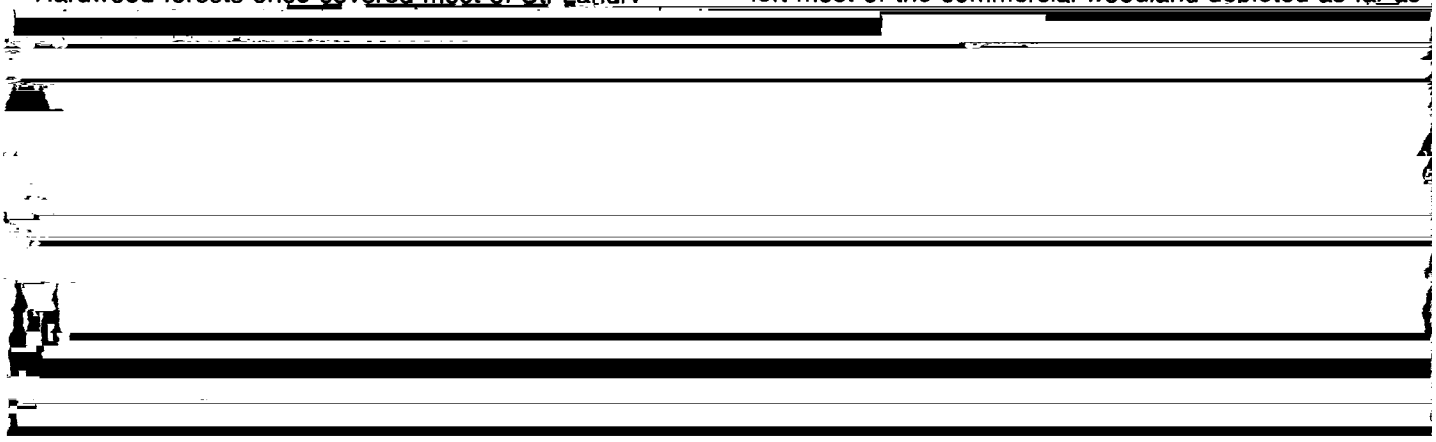
dogwood, sugarberry, water oak, black willow, and Hercules club. Pines are used extensively for landscaping on homesites, mostly in and around the towns of Opelousas and Eunice.

The marketable timber volume in St. Landry Parish is comprised of about 20 percent pine and 80 percent hardwood. Most of the forest acreage is in sawtimber (72.5 percent) followed by pole timber (17.5 percent), saplings and seedlings (7.5 percent), and non-stocked areas (2.5 percent). Most of the more productive sites are in cultivated crops or pasture. Consequently, only 7.5 percent of the forest land produces more than 120 cubic feet of wood per acre, while 42.5 percent produces 85 to



than 85 cubic feet per acre.

The potential value of wood products in St. Landry Parish is substantial; however, under present management, much of the existing woodland is producing far below its potential. Past cutting practices left most of the commercial woodland depleted as far as



Seedling mortality ratings indicate the degree to which [illegible] ability of the soil to support vegetation are also

Wildlife Habitat

Billy R. Craft, state staff biologist, Soil Conservation Service, helped to prepare this section.

St. Landry Parish is largely a rural parish with good wildlife habitat diversity. Habitat types include open agricultural land, bottom land hardwood forests, and a small amount of upland pine forests.

Areas of open agricultural land provide fair to excellent habitat for such species as mourning doves, bobwhite quail, woodcock, snipe, songbirds, cottontail and swamp rabbits, and many nongame animals. Several species of waterfowl, including mallard, pintail, and teal, utilize temporarily flooded fields during the winter months.

Interest in crawfish culture is increasing, and in 1980, there were 2,870 acres under a double cropping system of rice and crawfish. Other crops, such as grain sorghum, may also prove feasible to double crop with crawfish.

The bottom land hardwood forest in St. Landry Parish represents some of the best woodland wildlife habitat in the state. In recent years, this valuable resource has been significantly depleted because of land clearing for conversion to cropland. These forested areas contain moderate to high populations of white-tailed deer, gray and fox squirrels, swamp rabbit, wild turkey, raccoon, mink, nutria, opossum, coyote, woodcock, and many types of songbirds, reptiles, and amphibians. Numerous small lakes, bayous, and wetlands provide feeding and resting areas for large populations of wading birds (ibis, egrets, and herons), wood ducks, and migrating waterfowl. Most of the bottom land forest is leased by hunting clubs.

The Thistlewaite Wildlife Management Area, located near the community of Reggio, is private land leased by

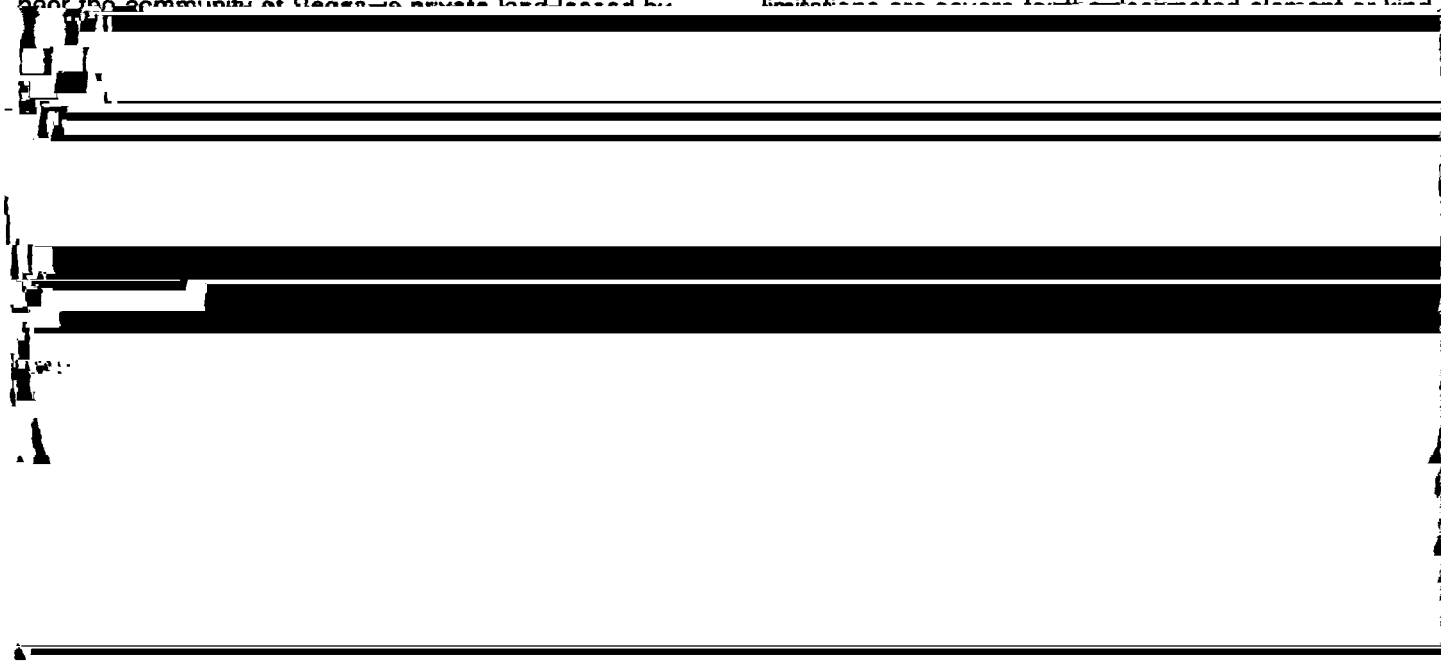
diversity. This could be accomplished by providing strips of vegetation along channels, fence rows, field borders, and other locations where large fields are currently devoted to a monoculture of soybeans or other crops.

Soils that are best suited to habitat improvement are in general soil map units 3, 4, and 5 described in the section "General Soil Map Units." Other information on soil-wildlife relations can be found in table 9.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

In table 9, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

The potential of the soil is rated good, fair, poor, or very poor. A rating of *good* indicates that the element or kind of habitat is easily established, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected. A rating of *fair* indicates that the element or kind of habitat can be established, improved, or maintained in most places. Moderately intensive management is required for satisfactory results. A rating of *poor* indicates that



temperature and soil moisture are also considerations. Examples of grasses and legumes are fescue, bahiagrass, bermudagrass, clover, and vetch.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, and flood hazard. Soil temperature and soil moisture are also considerations. Examples of wild herbaceous plants are bluestem, goldenrod, paspalum, wooly croton, and uniola.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, the available water capacity, and wetness. Examples of these plants are oak, sugarberry, water hickory, sweetgum, persimmon, hawthorn, dogwood, hickory, blackberry, and greenbriar.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, cedar, and baldcypress.

Shrubs are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs are depth of the root zone, available water capacity, salinity, and soil moisture. Examples of shrubs are American beautyberry, wax myrtle, American elder, and sumac.

Wetland plants are annual and perennial, wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, and slope. Examples of wetland plants are smartweed, wild millet, wildrice, rushes, sedges, and reeds.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are [illegible] associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, woodcock, thrushes, woodpeckers, squirrels, gray fox, raccoon, deer, and bear.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Engineering

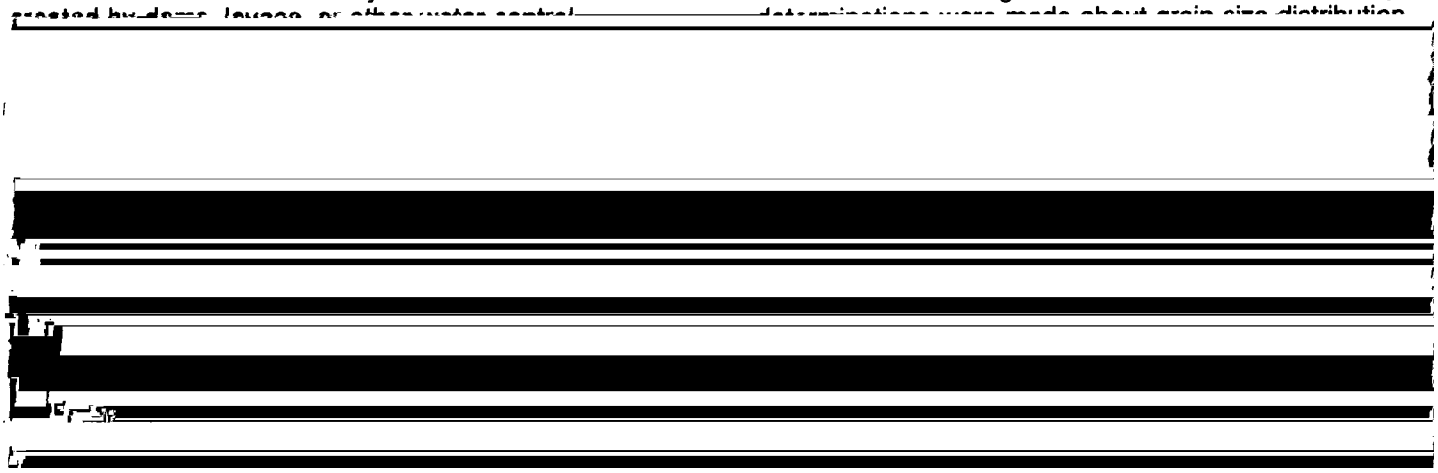
This section provides information for planning land uses related to urban development and to water management. Soils are rated for various uses, and the most limiting features are identified. The ratings are given in the following tables: Building site development, Sanitary facilities, Construction materials, and Water management. The ratings are based on observed performance of the soils and on the estimated data and test data in the "Soil Properties" section.

Information in this section is intended for land use planning, for evaluating land use alternatives, and for planning site investigations prior to design and construction. The information, however, has limitations. For example, estimates and other data generally apply only to that part of the soil within a depth of 5 or 6 feet. Because of the map scale, small areas of different soils may be included within the mapped areas of a specific soil.

The information is not site specific and does not eliminate the need for onsite investigation of the soils or for testing and analysis by personnel experienced in the design and construction of engineering works.

Government ordinances and regulations that restrict certain land uses or impose specific design criteria were not considered in preparing the information in this section. Local ordinances and regulations must be considered in planning, in site selection, and in design.

Soil properties, site features, and observed performance were considered in determining the ratings in this section. During the fieldwork for this soil survey, [illegible]



septic tank absorption fields, and sewage lagoons; plan detailed onsite investigations of soils and geology; locate potential sources of earthfill and topsoil; plan drainage systems, irrigation systems, ponds, terraces, and other structures for soil and water conservation; and predict performance of proposed small structures and pavements by comparing the performance of existing similar structures on the same or similar soils.

The information in the tables, along with the soil maps, the soil descriptions, and other data provided in this survey can be used to make additional interpretations.

Some of the terms used in this soil survey have a special meaning in soil science and are defined in the Glossary.

Building Site Development

Table 10 shows the degree and kind of soil limitations that affect shallow excavations, dwellings with and without basements, small commercial buildings, local roads and streets, and lawns and landscaping. The limitations are considered *slight* if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. Special feasibility studies may be required where the soil limitations are severe.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, and other purposes. The ratings are based on soil properties, site features, and observed

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material, a base of gravel, crushed rock, or stabilized soil material, and a flexible or rigid surface. Cuts and fills are generally limited to less than 6 feet. The ratings are based on soil properties, site features, and observed performance of the soils. Depth to a high water table, flooding, and slope affect the ease of excavating and grading. Soil strength (as inferred from the engineering classification of the soil), shrink-swell potential, and depth to a high water table affect the traffic-supporting capacity.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. The ratings are based on soil properties, site features, and observed performance of the soils. Soil reaction, a high water table, the available water capacity in the upper 40 inches, and the content of sodium affect plant growth. Flooding, wetness, slope, and the amount of sand, clay, or organic matter in the surface layer affect trafficability after vegetation is established.

Sanitary Facilities

Table 11 shows the degree and the kind of soil limitations that affect septic tank absorption fields, sewage lagoons, and sanitary landfills. The limitations are considered *slight* if soil properties and site features are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate* if soil properties or site features are not favorable for the indicated use and special planning, design, or maintenance is needed to overcome or minimize the limitations; and *severe* if soil properties or site features are so unfavorable or so difficult to overcome that special design, significant increases in construction

Unsatisfactory performance of septic tank absorption fields, including excessively slow absorption of effluent, surfacing of effluent, and hillside seepage, can affect public health. Ground water can be polluted if highly permeable sand and gravel is less than 4 feet below the base of the absorption field, if slope is excessive, or if the water table is near the surface. There must be unsaturated soil material beneath the absorption field to filter the effluent effectively. Many local ordinances require that this material be of a certain thickness.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Lagoons generally are designed to hold

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area type sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste.

Soil texture, wetness, and slope affect the ease of removing and spreading the material during wet and dry periods. Loamy or silty soils are the best cover for a landfill. Clayey soils are sticky or cloddy and are difficult to spread; sandy soils are subject to soil blowing.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over the water table to permit revegetation. The soil material used as final cover for a landfill should be suitable for plants. The surface layer generally has the best workability, more organic matter, and the best potential

than 10. They have moderate shrink-swell potential or slopes of 15 to 25 percent. Depth to the water table is 1 to 3 feet. Soils rated *poor* have a plasticity index of more than 10 or a high shrink-swell potential. They are wet, and the depth to the water table is less than 1 foot. They may have layers of suitable material, but the material is less than 3 feet thick.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area.

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil

surface water to outlets at a nonerosive velocity. Wetness and slope affect the construction of grassed

rooting depth, toxic substances such as sodium, and restricted permeability adversely affect the growth and

Soil Properties

Data relating to soil properties are collected during the course of the soil survey. The data and the estimates of soil and water features, listed in tables, are explained on the following pages.

Soil properties are determined by field examination of the soils and by laboratory index testing of some benchmark soils. Established standard procedures are followed. During the survey, many shallow borings are made and examined to identify and classify the soils and to delineate them on the soil maps. Samples are taken from some typical profiles and tested in the laboratory to determine grain-size distribution, plasticity, and compaction characteristics.

Estimates of soil properties are based on field examinations, on laboratory tests of samples from the survey area, and on laboratory tests of samples of similar soils in nearby areas. Tests verify field observations, verify properties that cannot be estimated accurately by field observation, and help characterize key soils.

The estimates of soil properties shown in the tables include the range of grain-size distribution and Atterberg limits, the engineering classifications, and the physical and chemical properties of the major layers of each soil. Pertinent soil and water features also are given.

Engineering Index Properties

Table 14 gives estimates of the engineering classification and of the range of index properties for the major layers of each soil in the survey area. Most soils have layers of contrasting properties within the upper 5 or 6 feet.

Depth to the upper and lower boundaries of each layer is indicated. The range in depth and information on other properties of each layer are given for each soil series under "Soil Series and Their Morphology."

Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. "Loam," for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than

Classification of the soils is determined according to the Unified soil classification system *(4)* and the system adopted by the American Association of State Highway and Transportation Officials *(3)*.

The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to grain-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, SP-SM.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection.

If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20, or higher, for the poorest.

Rock fragments larger than 3 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage.

Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an ovendry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and

estimates are based on test data from the survey area [redacted] varies, depending on soil properties that affect the

[redacted]

or from nearby areas, and on field examination.

The estimates of grain-size distribution, liquid limit, and plasticity index are rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is omitted in the table.

retention of water and the depth of the root zone. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Soil reaction is a measure of acidity or alkalinity and is

[redacted]

Organic matter is the plant and animal residue in the soil at various stages of decomposition.

In table 15, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter of a soil can be maintained or increased by returning crop residue to the soil. Organic matter affects the available water capacity, infiltration rate, and tilth. It is a source of nitrogen and other nutrients for crops.

Soil and Water Features

Table 16 gives estimates of various soil and water features. The estimates are used in land use planning that involves engineering considerations.

Hydrologic soil groups are used to estimate runoff from precipitation. Soils are assigned to one of four groups. They are grouped according to the intake of water when the soils are thoroughly wet and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when

unusual weather conditions (about 1 to 10 times in 100 years); *occasional* that it occurs, on the average, no more than twice in 5 years during the cropping season; and *frequent* that it occurs, on the average, more than twice in 5 years during the cropping season. Duration is expressed as *very brief* if less than 2 days, *brief* if 2 to 7 days, *long* if 7 days to 1 month, and *very long* if more than a month. Probable dates are expressed in months and are for the period of June through November.

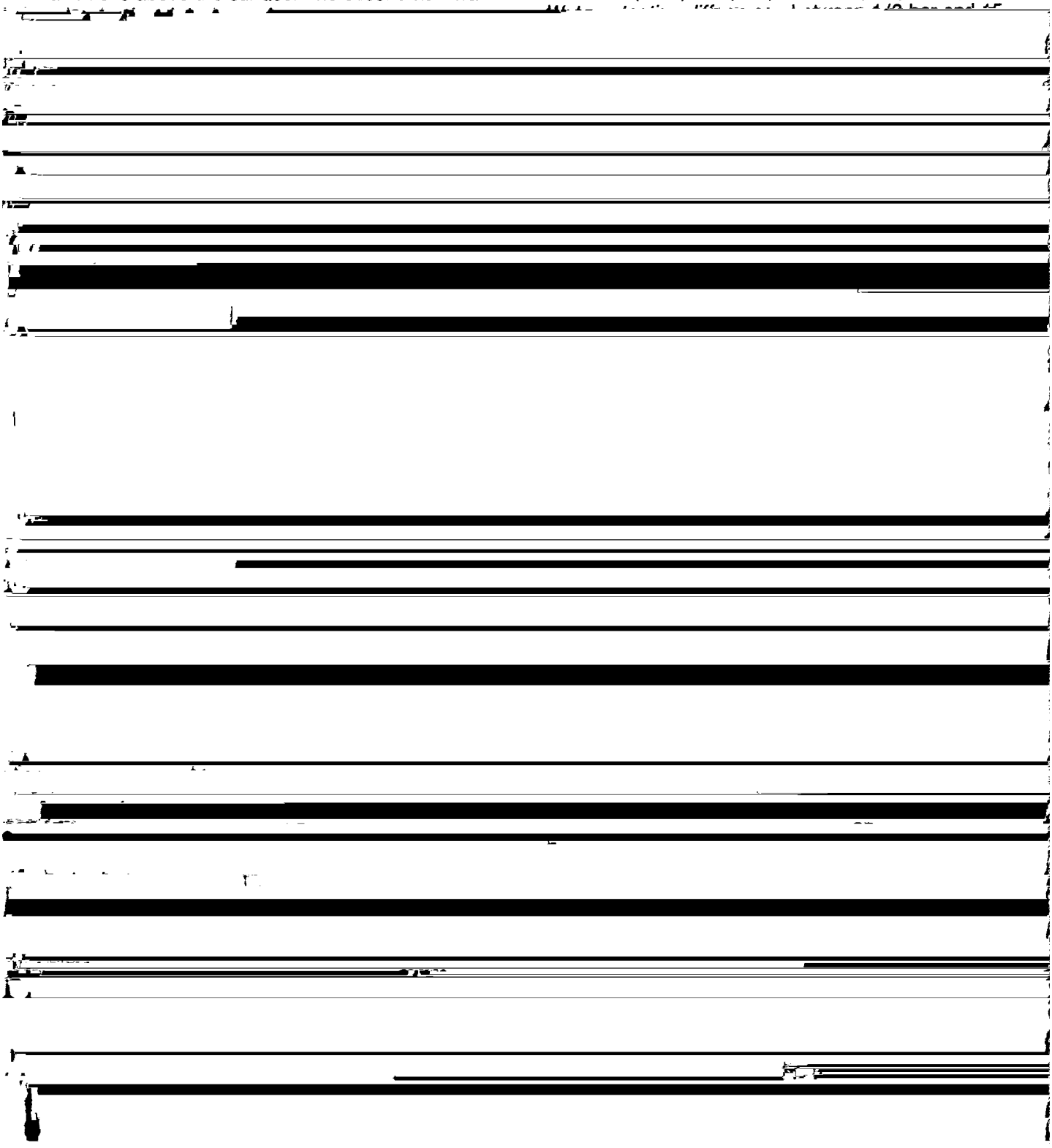
The definitions of the frequency of flooding for the occasionally and frequently flooded phases differ from the National Soil Conservation Service definition of each of these phases is slightly different, and the period of flooding is from June 1 to November 30 rather than any time during the year. See the map unit descriptions to determine whether the soils flood at other times during the year. Except for the capability subclasses, all interpretations are based on the flooding as detailed in the map units, which is equal to the National Soil Conservation Service definition.

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and absence of distinctive horizons that form in soils that are not subject to flooding.

Also considered are local information about the extent

indicates that the water table is above the surface of the soil. The first numeral in the range indicates how high the water rises above the surface. The second numeral

Water retained—pressure extraction, percentage of oven-dry weight of less than 2 mm material; 1/3 or 1/10 (3/10) bar (4B1), 15 bars (4B2).



saturation; and the saturation of aluminum and sodium. The results from these analyses, given in table 20, are the basis for the discussion in this section. These results can be especially useful in evaluating possible effects of practices that often result in material from subsurface horizons being incorporated into the surface layer. Such practices include ditching, terracing, land leveling, and levee construction.

Soil fertility management and other soil management

of soil in the surface layer and as high as 23.3 milliequivalents per 100 grams of soil in the subsoil.

Organic matter also tends to produce a high cation exchange capacity. Many of the soils have a higher cation exchange capacity in the surface horizon than in the next lower horizon even though the clay content of the two horizons may be similar. Examples include the Wrightsville, Fausse, and Mamou soils. This difference

to surface horizons may be a contributing factor to the distribution of bases in the upper part of the subsoil.

The soils analyzed in St. Landry Parish can be placed in three general groups with respect to levels of extractable phosphorus in horizons below the surface. The Alligator, Baldwin, Commerce, Convent, Dundee, Fausse, Gallion, Iberia, Jeanerette, Latanier, Loreauville, Memphis, and Tensas soils have as much as 100 parts per million (ppm) extractable phosphorus in any subsoil horizon. The Calhoun, Falaya, Frost, Perry, and Sharkey soils have between 50 and 100 ppm extractable phosphorus in one or more subsoil horizons. Only the Loring soil has a maximum extractable phosphorus content between 25 and 50 ppm in the subsoil horizons. In the remaining soils, the maximum extractable phosphorus levels are less than 25 ppm and, in most

plants are present in some horizons of mineral soils having pH values of less than about 5.5. High levels of extractable aluminum can be toxic to many cultivars of crops such as cotton, soybeans, corn, and small grains (*1, 2, 11, 12, 13, 17, 18*). A greater than 10 percent saturation of the soil's effective cation exchange capacity with extractable aluminum may result in aluminum toxicity to some crops. The effective cation exchange capacity of the soil is the sum of the extractable calcium, magnesium, potassium, sodium, aluminum, and hydrogen. This should not be confused with the cation exchange capacity shown in table 18, which is the sum of the extractable calcium, magnesium, potassium, sodium, and extractable acidity. Potentially toxic levels of extractable aluminum were present in surface horizons as well as subsoil horizons of many of

phytotoxicity among many agronomic crops depending, in some cases, on the particular cultivar grown. Planting crops or cultivars that are tolerant of high aluminum levels can help avoid phytotoxicity problems.

Manganese (Mn) is another essential plant nutrient element that may be present in amounts that are toxic to plants in many acid, poorly drained soils. Manganese is somewhat analogous to aluminum in that potentially toxic levels are most common in soil horizons that have a pH 5.0 to 5.5 or less. Increasing the pH of the soil to pH 6.0 or more reduces manganese solubility to nontoxic levels. Unlike aluminum, manganese can occur either as the oxidized or reduced form in soils. The more soluble reduced form of manganese is more prevalent in wet, poorly drained or somewhat poorly drained soils than in associated soils that are better drained. Also, potentially toxic levels in surface horizons are more common for manganese than aluminum. Toxicity from high levels of manganese is more common in wet than in dry years.

Some of the soils (Latanier, Jeanerette, and Gallion soils for example) have free calcium carbonate in some or all horizons depending on the particular soil. The presence of calcium carbonate is an important factor in use and management of soils. It is a very readily weatherable source of calcium and neutralizer of acidity: 6 molecules calcium carbonate plus 6 hydrogen ions yields 3 molecules calcium bicarbonate plus 3 calcium ions.

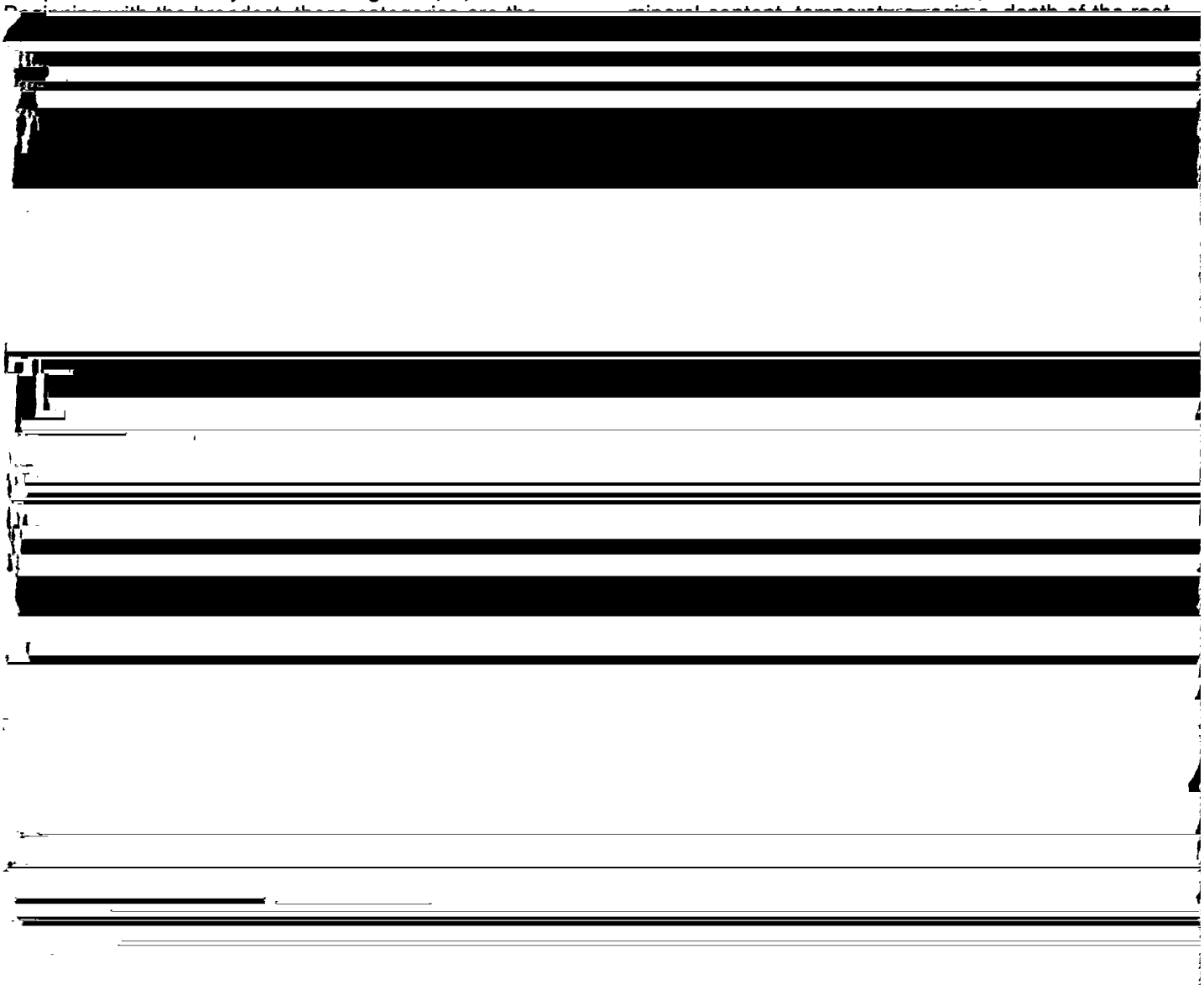
Large quantities of calcium carbonate in the upper, especially the surface, soil horizons can be an undesirable condition for plant growth for several reasons. The alkaline soil reaction maintained by excess calcium carbonate can seriously depress availability to plants of most essential plant nutrients, especially micronutrients such as zinc, copper, and manganese; large quantities of phosphorus may be precipitated as compounds such as tricalcium phosphates; excessive amounts of calcium carbonate may, upon weathering, give rise to cation exchange reactions that result in the soils exchange complex being essentially 100 percent calcium-saturated and almost devoid of other cations such as magnesium and potassium.

The following are the methods used by the Soil Fertility Laboratory of the Louisiana Agricultural Experiment Station. The codes in parentheses refer to published methods *(29)*.

Organic carbon—dichromate, ferric sulfate titration (6A1a).
Organic matter—peroxide digestion (6A3).
Extractable cations—ammonium acetate pH 7.0, uncorrected; calcium (6N2), magnesium (602), sodium (6P2), potassium (6Q2).
Extractable acidity—barium chloride-triethanolamine I (6H1a).
Cation-exchange capacity—sum of cations (5A3a).
Base saturation—sum of cations, TEA, pH 8.2 (5C3).
Reaction (pH)—1:1 water dilution (8C1a).
Aluminum—potassium chloride extraction (6G).
Available phosphorus—(Bray's weak extracting solution).

Classification of the Soils

The system of soil classification used by the National Cooperative Soil Survey has six categories *(28)*.



order, suborder, great group, subgroup, family, and series. Classification is based on soil properties observed in the field or inferred from those observations or on laboratory measurements. Table 21 shows the classification of the soils in the survey area. The

there is much biological activity. Among the properties and characteristics considered are particle-size class, mineral content, temperature regime, depth of the root zone, consistence, moisture equivalent, slope, and permanent cracks. A family name consists of the name of a subgroup preceded by terms that indicate soil properties. An example is fine, montmorillonitic, thermic Typic Albaqualfs.

The Acadia soils commonly are near the Basile, Crowley, and Wrightsville soils. The poorly drained Basile soils are in drainageways and are fine-silty. The Crowley soils are on convex ridges and have an abrupt textural change from the surface layer to the subsoil. The poorly drained Wrightsville soils are on broad flats, and they have an albic horizon that tongues into the argillic horizon.

Typical pedon of Acadia silt loam, 1 to 3 percent slopes, 3.5 miles west of Eunice, 300 feet south of U.S. Highway 190, SW1/4SE1/4 sec. 32, T. 6 S., R. 1 W.

A—0 to 5 inches; dark grayish brown (10YR 4/2) silt

and chroma of 2. Reaction ranges from very strongly acid to medium acid.

The BC and C horizons have the same color range as the Btg horizon. Texture of the C horizon is silty clay or silty clay loam. Reaction ranges from strongly acid to mildly alkaline.

Alligator Series

The Alligator series consists of poorly drained, very slowly permeable soils that formed in clayey alluvium. These soils are in swales on the natural levees of former channels of the Mississippi River. Slopes are less than 1

Thickness of the solum ranges from 40 to 60 inches. Reaction of the upper 40 inches of the soil is strongly acid or very strongly acid.

The A or Ap horizon is 5 to 8 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Texture is clay or silty clay.

The Bg horizon has hue of 10YR or 5Y, value of 4 to 6, and chroma of 1. Texture is clay or silty clay.

The Cg horizon has the some color and texture range as the Bg horizon. Reaction ranges from strongly acid to neutral.

Baldwin Series

The Baldwin series consists of poorly drained, very slowly permeable soils that formed in clayey alluvium. These soils are in intermediate and low positions on natural levees of former channels of the Mississippi River and its distributaries. Slopes range from 0 to 3 percent.

Soils of the Baldwin series are fine, montmorillonitic, thermic, Vertic Ochraqualfs.

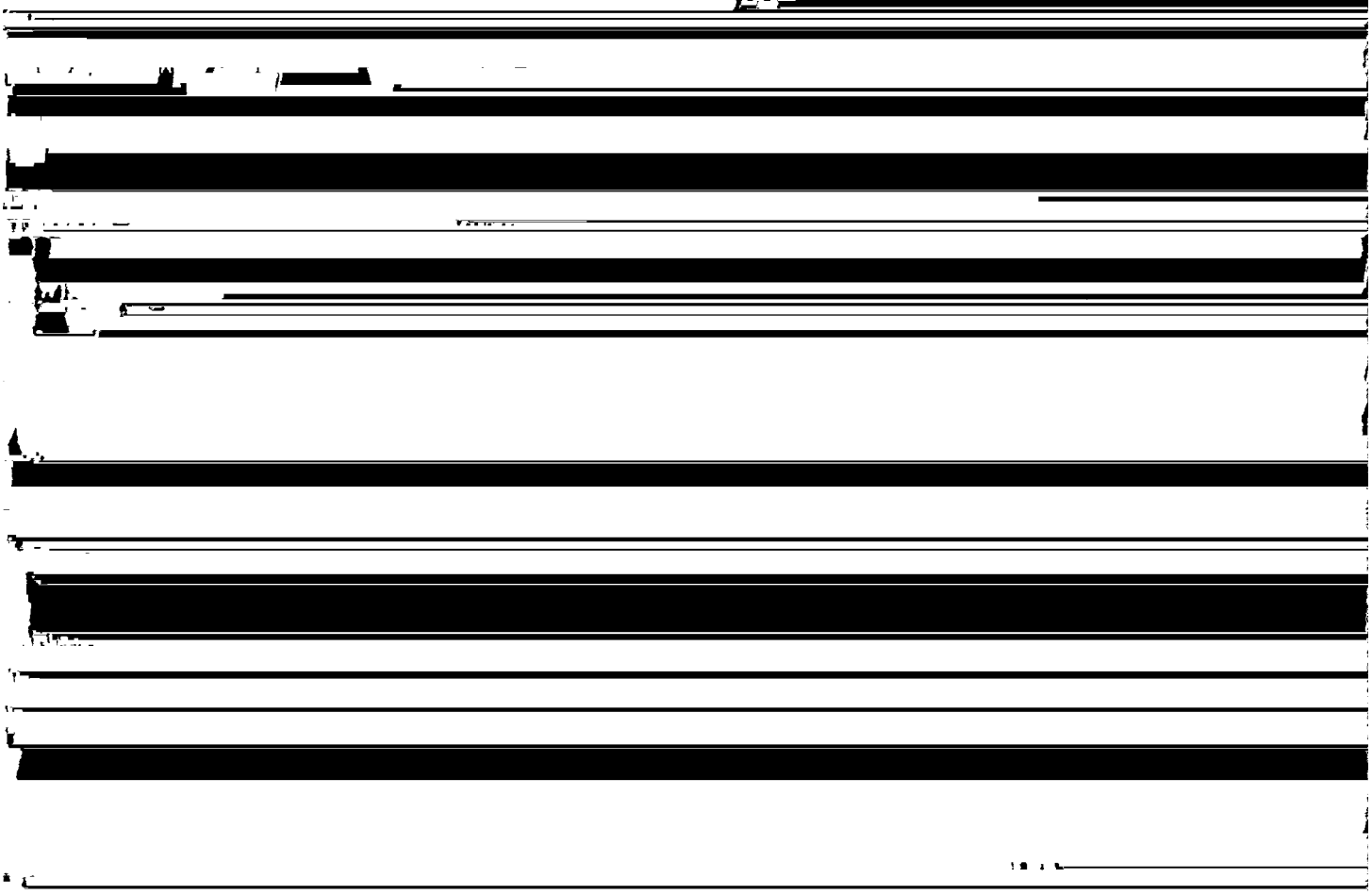
The Baldwin soils commonly are near the Dundee,

Btg3—24 to 34 inches; light brownish gray (2.5Y 6/2) silty clay; common medium distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure; firm; few medium black concretions of iron and manganese; few medium white concretions of calcium carbonate; distinct discontinuous gray clay films on surfaces of peds; mildly alkaline; gradual wavy boundary.

BCg—34 to 50 inches; light brownish gray (2.5Y 6/2) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; weak medium prismatic structure; firm; few fine black concretions of iron and manganese; thin patchy gray clay films on surfaces of peds; mildly alkaline; clear smooth boundary.

Cg—50 to 74 inches; gray (5Y 5/1) silty clay; common medium prominent dark yellowish brown (10YR 4/4) mottles; massive; firm; common fine and medium black concretions of iron and manganese; few strata of silt loam less than one inch thick throughout horizon; neutral.

Thickness of the solum ranges from 40 to 70 inches. The A or Ap horizon is 6 to 8 inches thick. It has hue

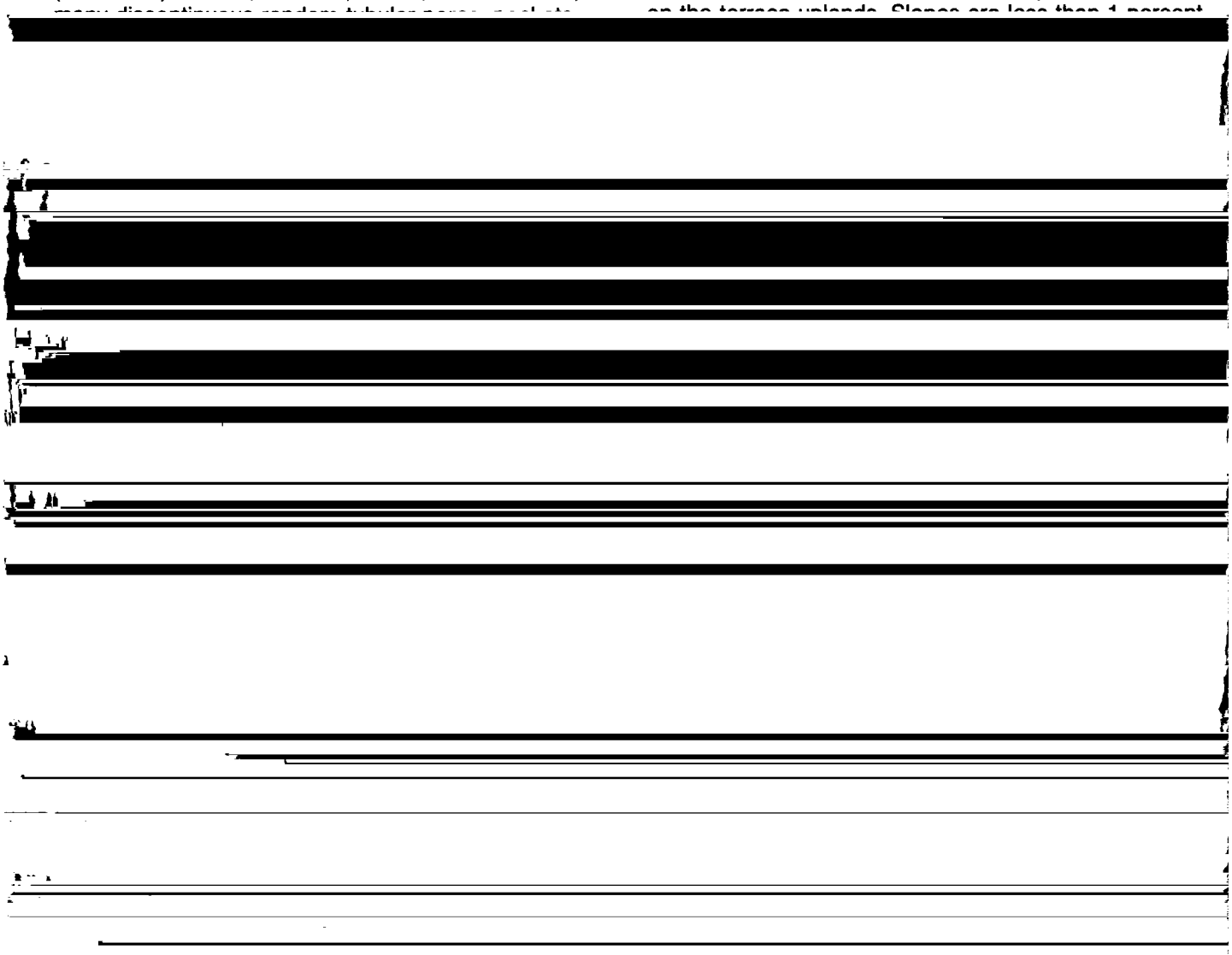


a private road and Louisiana Highway 757, 375 feet west of a private road, NW1/4NE1/4 sec. 22, T. 6 S., R. 1 W.

A—0 to 3 inches; dark grayish brown (10YR 4/2) silt loam; few fine faint grayish brown mottles; weak fine subangular blocky structure; friable; many fine roots; few fine black concretions, medium acid; clear wavy boundary.

Eg1—3 to 14 inches; light brownish gray (10YR 6/2) silt loam; few fine distinct dark brown (10YR 4/3) mottles; massive; friable; few fine roots; many discontinuous random tubular pores; medium acid; gradual wavy boundary.

Eg2—14 to 20 inches; light brownish gray (10YR 6/2) silt loam; common medium distinct yellowish brown (10YR 5/6) mottles, massive; friable; few fine roots; many discontinuous random tubular pores; [illegible]



of light gray (10YR 7/1) silt; strongly acid; clear irregular boundary.

B/E—20 to 30 inches; gray (10YR 6/1) silty clay loam

The E horizon is 14 to 24 inches thick. It has hue of 10YR, value of 5 to 7, and chroma of 1 or 2. Reaction is strongly acid or medium acid.

The Btg horizon has hue of 10YR, 2.5Y, or 5Y, value of 5 or 6, and chroma of 1 or 2. It is silt loam or silty clay loam. Reaction ranges from medium acid to moderately alkaline.

The BC horizon has the same colors as the Btg horizon. It is silt loam or silty clay loam. Reaction ranges from slightly acid to moderately alkaline.

Calhoun Series

The Calhoun series consists of poorly drained, slowly permeable soils that formed in loess or similar material. These soils are on broad flats or in depressional areas on the terrace uplands. Slopes are less than 1 percent

Soils of the Calhoun series are fine-silty, mixed, thermic Typic Glossaqualfs.

The Calhoun soils are similar to the Wrightsville soils

mass in the upper part); strongly acid; clear wavy boundary.

Bt2—25 to 46 inches; grayish brown (10YR 5/2) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; firm; thick discontinuous clay films on vertical surfaces of peds; thin discontinuous light gray silt coatings on vertical surfaces of peds; few medium black concretions of iron and manganese; strongly acid; gradual wavy boundary.

BC—46 to 60 inches; light brownish gray (10YR 6/2) silt loam; many medium distinct yellowish brown (10YR 5/8) mottles; weak medium subangular blocky structure; friable; few fine black concretions of iron and manganese; strongly acid.

Thickness of the solum ranges from 50 to 80 inches.

The Ap or A horizon is 4 to 7 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Reaction ranges from very strongly acid to medium acid.

The E horizon is 10 to 20 inches thick. It has hue of [redacted]

C1—25 to 35 inches; grayish brown (10YR 5/2) silt loam; common medium distinct dark yellowish brown (10YR 4/4) and few fine distinct yellowish brown (10YR 5/6) mottles; massive; friable; few fine roots; moderately alkaline; gradual smooth boundary.

C2—35 to 60 inches; stratified grayish brown (10YR 5/2) silt loam and silty clay loam; few medium distinct dark yellowish brown (10YR 4/4) mottles; massive; friable; saturated with water; moderately alkaline.

Thickness of the solum ranges from 20 to 40 inches.

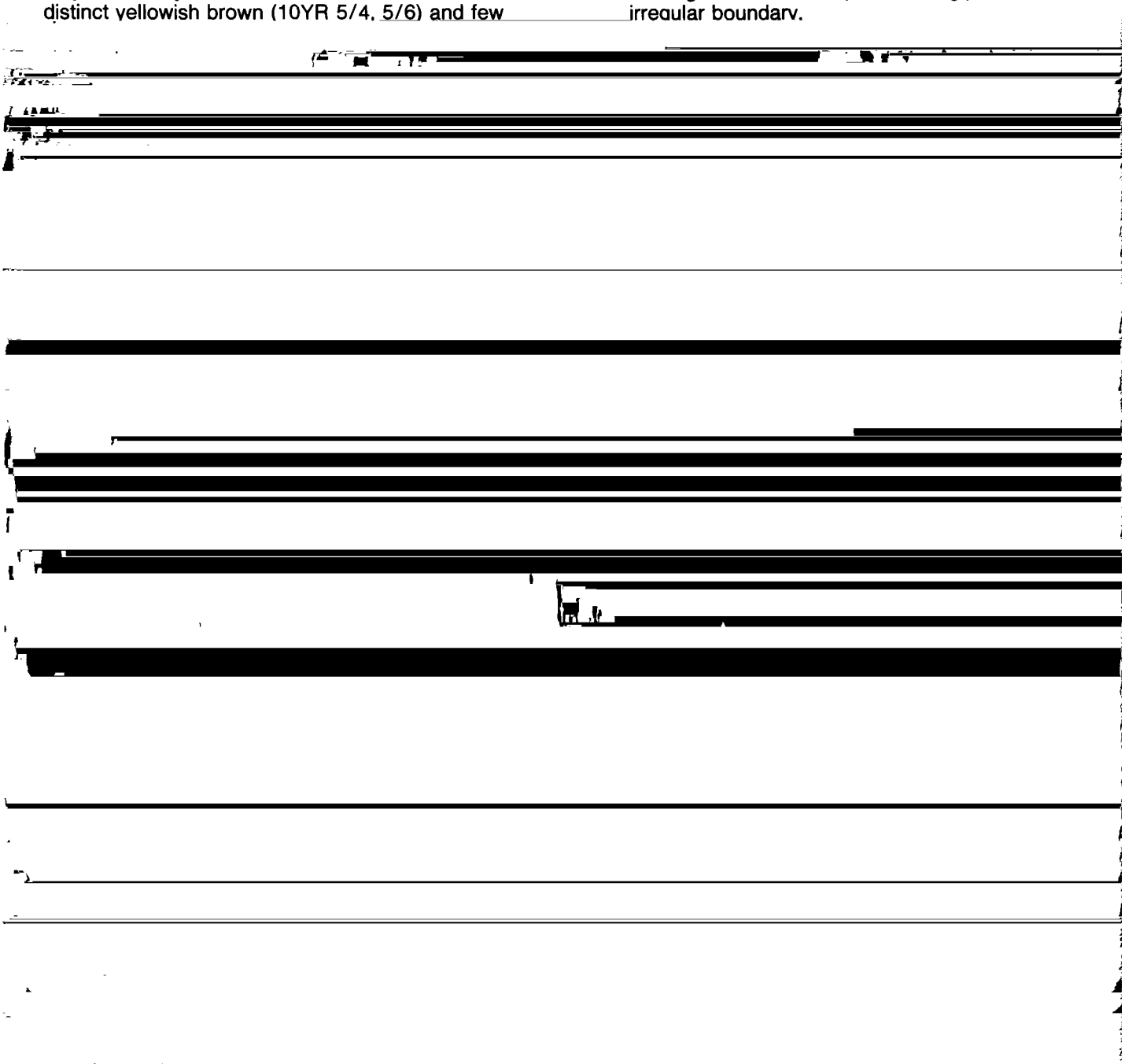
The Ap horizon has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Texture is silt loam or silty clay loam. The Ap horizon is 6 to 10 inches thick. Reaction is neutral or mildly alkaline.

The Bw horizon has hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 1 or 2. Texture is silt loam or silty clay loam. Mottles in shades of brown or gray range from few to many. Reaction ranges from neutral to moderately alkaline.

The C horizon has the same range in reaction and [redacted]

slight effervescence; mildly alkaline; clear smooth boundary.

C3—30 to 60 inches; grayish brown (10YR 5/2) stratified very fine sandy loam and silt loam; common medium distinct yellowish brown (10YR 5/4, 5/6) and few



massive; friable; faint bedding planes saturated with water; moderately alkaline.

The Ap horizon has hue of 10YR, value of 4 or 5, and chroma of 2 or 3. It is silt loam or very fine sandy loam and is 5 to 9 inches thick. Reaction ranges from neutral to moderately alkaline.

some peds; common fine yellowish brown nodules with black interiors; slightly brittle darker areas (10 percent of cross-section); thin discontinuous silt coatings on surface of peds; strongly acid; clear irregular boundary.

loam (B); moderate medium prismatic structure parting to moderate medium subangular blocky; firm; common fine roots; few fine vesicular pores; thin discontinuous clay films on surface of some peds; interfingers of pale brown (10YR 6/3) silt loam (E) 1 to 1.5 centimeters thick between prisms (about 25 percent of horizon); common fine yellowish brown

Soils of the Crowley series are fine, montmorillonitic, thermic Typic Albaqualfs.

The Crowley soils commonly are near the Acadia, Frost, Mamou, Mowata, and Patoutville soils. The Acadia soils are on side slopes of erosional stream channels and do not have an abrupt textural change from the surface layer to the subsoil. The poorly drained Frost and Mowata soils are on broad flats and in drainageways. The Mowata soils have an albic horizon that tongues into the argillic horizon. Frost, Mamou, and Patoutville soils are fine-silty. The Mamou soils are on side slopes of constructional stream channels, and the Patoutville soils are in slightly higher positions than the Crowley soils.

Typical pedon of Crowley silt loam, 0.3 mile southeast of Eunice, 0.25 mile north of the Acadia Parish line, NW1/4SE1/4 sec. 31, T. 6 S., R. 1 E.

Ap—0 to 7 inches; dark grayish brown (10YR 4/2) silt loam; common fine distinct dark yellowish brown (10YR 4/6) mottles; weak fine granular structure; very friable; common fine roots; very strongly acid; clear smooth boundary.

E1—7 to 12 inches; grayish brown (10YR 5/2) silt loam; common fine distinct dark yellowish brown (10YR 4/6) mottles; massive; friable; few fine roots; few medium concretions of iron and manganese; many fine distinct very dark grayish brown (10YR 3/2) stains; neutral; gradual wavy boundary.

E2—12 to 20 inches; grayish brown (10YR 5/2) silt loam; many fine distinct yellowish brown (10YR 5/6) and few fine distinct dark yellowish brown (10YR 4/6) mottles; massive; friable; few fine roots; few medium concretions of iron and manganese; neutral; abrupt wavy boundary.

Btg1—20 to 31 inches; grayish brown (10YR 5/2) silty clay; many fine prominent red (2.5YR 5/6) and few fine distinct yellowish brown (10YR 5/6) mottles; moderate medium angular blocky structure; firm; few fine roots; continuous thick dark gray clay films on surfaces of peds; strongly acid; clear wavy boundary.

Btg2—31 to 48 inches; grayish brown (10YR 5/2) silty clay loam; common medium distinct yellowish brown (10YR 5/6) and few fine prominent red (2.5YR 5/6) mottles; moderate medium subangular blocky structure; firm; few fine roots; discontinuous distinct gray clay films on vertical faces of peds; few fine concretions of iron and manganese; strongly acid; gradual wavy boundary.

BC—48 to 60 inches; light brownish gray (10YR 6/2) silty clay loam; few fine distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; firm; thin patchy clay films on vertical faces of peds; few fine concretions of iron and manganese; slightly acid.

Thickness of the solum ranges from 40 to 75 inches.

The Ap horizon is 6 to 9 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Reaction ranges from very strongly acid to neutral.

The E horizon is 7 to 14 inches thick. It has hue of 10YR, value of 5 or 6, and chroma of 1, or it has hue of 10YR, value of 5, and chroma of 2. Reaction ranges from very strongly acid to moderately alkaline.

The Bt horizon has hue of 10YR, value of 4 or 6, and chroma of 1, or it has hue of 10YR, value of 5, and chroma of 2. Reaction ranges from very strongly acid to slightly acid. Texture is silty clay or silty clay loam.

The BC horizon has hue of 10YR, value of 5 or 6, and chroma of 1 or 2. Reaction ranges from medium acid to moderately alkaline.

Dundee Series

The Dundee series consists of somewhat poorly drained, moderately slowly permeable soils that formed in loamy alluvium. These soils are in the highest positions on the natural levees of former channels of the Mississippi River and its distributaries. Slopes range from 0 to 3 percent.

Soils of the Dundee series are fine-silty, mixed, thermic Aeric Ochraqualfs.

The Dundee soils commonly are near the Alligator, Baldwin, Loreauville, Tensas, and Sharkey soils. The poorly drained Alligator, Baldwin, and Sharkey soils are in lower positions than the Dundee soils. The Loreauville and Tensas soils are in slightly lower positions than Dundee soils. The Alligator and Sharkey soils have a very-fine control section and the Baldwin and Tensas soils have a fine control section. The Loreauville soils are more alkaline in the subsoil than the Dundee soils.

Typical pedon of Dundee silt loam, 4.5 miles northeast of Palmetto, 0.75 mile west of Louisiana Highway 360, 2,000 feet north of Bayou Rouge, NW1/4SE1/4 sec. 28, T. 3 S., R. 6 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam; few fine faint dark yellowish brown mottles; weak fine granular structure; very friable; common fine roots; mildly alkaline; abrupt smooth boundary.

Bt1—6 to 12 inches; grayish brown (10YR 5/2) silty clay loam; common fine distinct yellowish brown (10YR 5/6) mottles; weak coarse prismatic structure parting to moderate medium subangular blocky; firm; common fine roots; thick continuous dark grayish brown clay films on surfaces of peds; strongly acid; gradual wavy boundary.

Bt2—12 to 19 inches; grayish brown (10YR 5/2) silty clay loam; common medium distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure parting to moderate medium subangular blocky; firm; common medium roots; thin continuous dark grayish brown clay films on surfaces of peds; strongly acid; clear smooth boundary.

BC—19 to 29 inches; grayish brown (10YR 5/2) silty clay loam; many fine distinct yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure; firm; thin patchy clay films on surfaces of some peds and in some pores; few fine black concretions of iron and manganese; strongly acid; gradual smooth boundary.

2C1—29 to 40 inches; grayish brown (10YR 5/2) silt loam; common medium distinct dark yellowish brown (10YR 4/6) mottles; massive; friable; few fine black concretions of iron and manganese; medium acid; gradual wavy boundary.

2C2—40 to 60 inches; grayish brown (10YR 5/2) very fine sandy loam; common medium distinct dark yellowish brown (10YR 4/6) mottles; massive; friable; few fine black concretions of iron and manganese; neutral.

Thickness of the solum ranges from 24 to 50 inches.

The A or Ap horizon is 4 to 8 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 2. Texture is silt loam or silty clay loam. Reaction is strongly acid or medium acid in undisturbed pedons and ranges from strongly acid to mildly alkaline in pedons where the surface layer has been limed.

The Bt and BC horizons have hue of 10YR or 2.5Y, value of 4 or 5, and chroma of 2. Texture is silt loam, [illegible]

moderate roots; very strongly acid; clear smooth boundary.

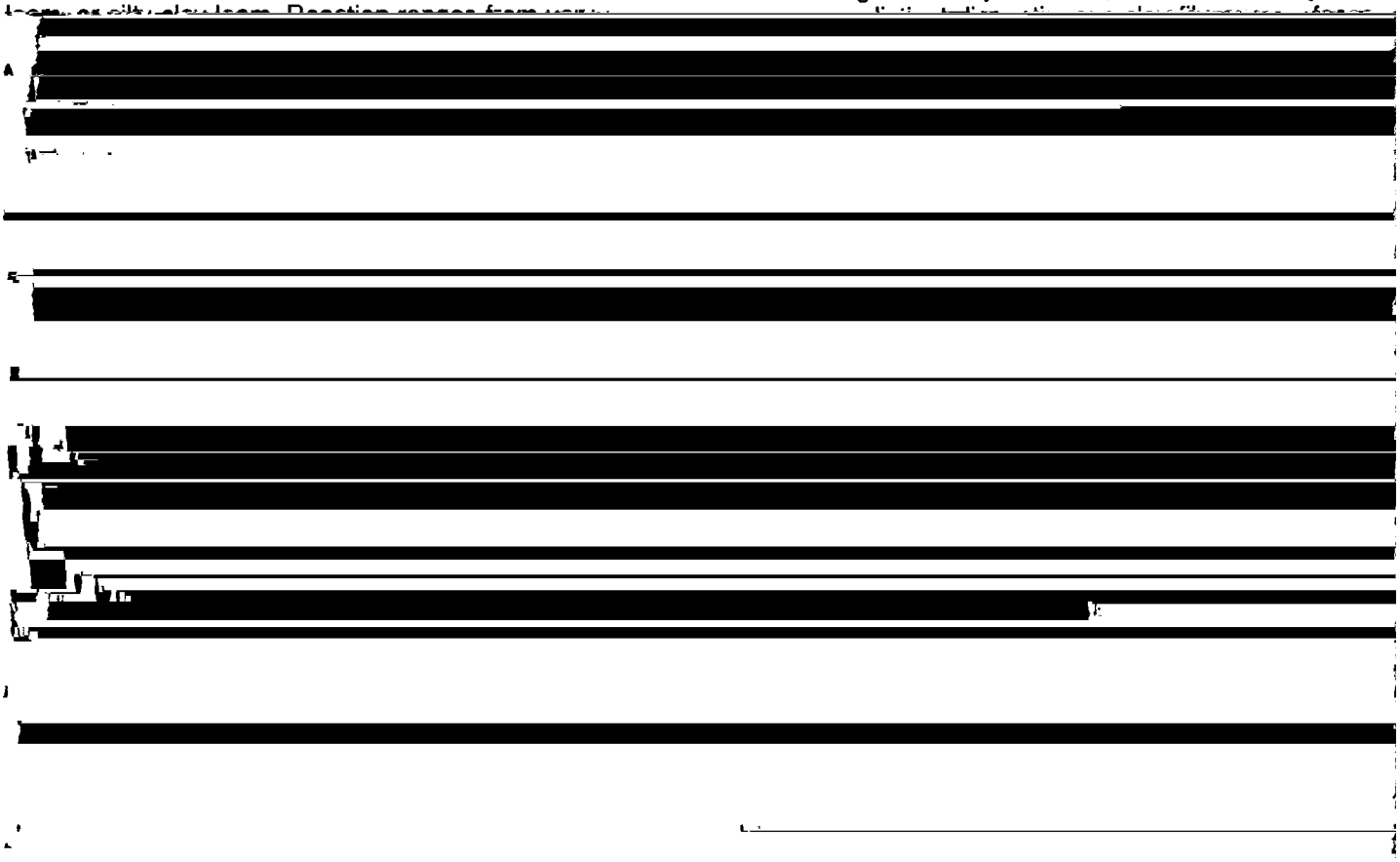
Bw—6 to 16 inches; brown (10YR 4/3) silt loam; few fine faint grayish brown mottles; weak medium granular structure; friable; common fine roots; strongly acid; clear wavy boundary.

C—16 to 37 inches; grayish brown (10YR 5/2) silt loam; many medium distinct dark yellowish brown (10YR 4/4) mottles and few fine faint light brownish gray mottles; weak medium subangular blocky structure; friable; few fine and coarse roots; common relict bedding planes; strongly acid; clear wavy boundary.

Ab—37 to 42 inches; dark grayish brown (10YR 4/2) silt loam; common fine faint grayish brown mottles; weak coarse granular structure; friable; strongly acid; abrupt wavy boundary.

Eb—42 to 53 inches; light brownish gray (10YR 6/2) silt loam; common medium distinct dark yellowish brown (10YR 4/4) and few fine distinct yellowish brown (10YR 5/4) mottles; massive; moderately brittle; friable; many fine vesicular pores; common pockets of light gray silt; strongly acid; clear irregular boundary.

Btb—53 to 60 inches; light brownish gray (10YR 6/2) silty clay loam; common medium distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; brittle; firm; many fine [illegible]



Typical pedon of Fausse clay, in an area of Fausse and Sharkey soils, 3 miles southwest of Krotz Springs, 3.5 miles west of Louisiana Highway 105, SE1/4SW1/4 sec. 24, T. 6 S., R. 7 E.

O—2 to 0 inches; fresh leaves, twigs, and litter.
A—0 to 8 inches; dark grayish brown (10YR 4/2) clay; common fine distinct dark yellowish brown (10YR 4/4) mottles; moderate medium angular blocky structure; firm; common fine and medium roots; slightly acid; gradual wavy boundary.
Bg1—8 to 22 inches; dark gray (10YR 4/1) clay; few fine distinct strong brown (7.5YR 5/6) mottles; weak medium angular blocky structure; firm; common fine and medium roots; neutral; gradual wavy boundary.
Bg2—22 to 36 inches; dark gray (5Y 4/1) clay; common medium prominent strong brown (7.5YR 5/6) and few fine prominent yellowish red (5YR 4/6) mottles; weak medium angular blocky structure; firm; few fine roots; neutral; gradual wavy boundary.
BCg—36 to 44 inches; gray (5Y 5/1) clay; few medium prominent yellowish brown (10YR 5/6) mottles; weak fine angular blocky structure; firm; few fine roots; neutral; gradual wavy boundary.
Cg—44 to 60 inches; gray (5Y 5/1) clay; common medium prominent dark yellowish brown (10YR 4/4) mottles; massive; very sticky; neutral.

Thickness of the solum ranges from 25 to 50 inches. The n value of the solum in the 8- to 20-inch section is 0.7 or less. Cracks do not form to a depth of 20 inches below the surface at any time. COLE ranges from 0.09 to 0.18 in all mineral layers.

The A horizon is 2 to 10 inches thick. It has hue of 10YR, value of 3 or 4, and chroma of 1 or 2. Reaction ranges from medium acid to neutral.

The Bg horizon has hue of 10YR or 5Y, value of 4 or 5, and chroma of 1. Reaction ranges from neutral to moderately alkaline.

The Cg horizon has the same range in colors as the Bg horizon. Reaction ranges from neutral to moderately alkaline.

Frost Series

The Frost series consists of poorly drained, slowly permeable soils that formed in silty deposits of late Pleistocene age. These soils are on broad flats and along drainageways on the terrace uplands. Slopes are less than 1 percent.

Soils of the Frost series are fine-silty, mixed, thermic [redacted]

soils. The Patoutville soils do not have an argillic horizon that contains tongues of albic materials. The Crowley soils have a fine control section. The Jeanerette soils have a mollic epipedon. The Mowata soils are in similar positions as the Frost soils and have a fine control section.

Typical pedon of Frost silt loam, 2 miles southwest of Opelousas, 0.5 mile west of Louisiana Highway 357, 125 feet east of a gravel road, Spanish Land Grant 25, T. 6 S., R. 3 E.

Ap—0 to 6 inches; dark grayish brown (10YR 4/2) silt loam; few fine faint dark yellowish brown mottles; weak fine granular structure; very friable; few fine black concretions of iron and manganese; medium acid; clear smooth boundary.
Eg1—6 to 11 inches; dark gray (10YR 4/1) silt loam; few medium distinct yellowish brown (10YR 5/8) mottles; massive; friable; few fine black concretions of iron and manganese; strongly acid; clear smooth boundary.
Eg2—11 to 19 inches; gray (10YR 5/1) silt loam; few medium distinct yellowish brown (10YR 5/8) mottles; massive; friable; few fine black concretions of iron and manganese; strongly acid; gradual wavy boundary.
B/E—19 to 28 inches; dark gray (10YR 4/1) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; tongues of gray (10YR 5/1) silt loam 2 to 3 inches wide (30 percent of horizon); weak medium subangular blocky structure; friable; few fine roots; common fine black concretions of iron and manganese; thin patchy dark gray (10YR 4/1) clay films on surfaces of peds; strongly acid; gradual wavy boundary.
Btg1—28 to 38 inches; light brownish gray (2.5Y 6/2) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; firm; common fine black concretions of iron and manganese; thick continuous dark gray (10YR 4/1) clay films on surfaces of peds; medium acid; gradual wavy boundary.
Btg2—38 to 46 inches; light brownish gray (10YR 6/2) silty clay loam; common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure; firm; common fine black concretions of iron and manganese; thin continuous gray clay films on surfaces of peds; medium acid;

[redacted]

Thickness of the solum ranges from 48 to 72 inches.

The Ap horizon is 4 to 6 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Reaction ranges from very strongly acid to slightly acid.

The E horizon is 10 to 20 inches thick. It has hue of 10YR, value of 4 to 6, and chroma of 1 or 2. Reaction ranges from very strongly acid to medium acid.

coatings on some vertical surfaces of peds; few fine black concretions; moderately alkaline; clear smooth boundary.

Bt3—14 to 19 inches; grayish brown (10YR 5/2) silty clay loam; many medium distinct yellowish brown (10YR 5/6) mottles; moderate medium prismatic structure parting to moderate fine subangular blocky

clay loam or silt loam. The exchangeable sodium percentage averages more than 5 percent and less than 15 percent in the upper 40 centimeters of the Bt horizon. Sand content averages less than 10 percent. Reaction ranges from neutral to strongly alkaline. Mottles in shades of brown or gray range from few to many.

The BC horizon has hue of 10YR or 2.5Y, value of 5 or 6, and chroma of 1 or 2. It is silty clay loam or silt loam. Reaction ranges from mildly alkaline to strongly alkaline. Concretions of calcium carbonate are few or common.

Gallion Series

The Gallion series consists of well drained, moderately

Thickness of the solum ranges from 40 to 60 inches.

The A horizon is 5 to 12 inches thick. It has hue of 10YR or 7.5YR, value of 4 or 5, and chroma of 2 to 4. Texture is silt loam or silty clay loam. Reaction ranges from medium acid to neutral.

The Bt horizon has hue of 5YR, value of 4 or 5, and chroma of 3 to 6, or it has hue of 7.5YR, value of 4 or 5, and chroma of 4 or 6. Reaction ranges from medium acid to mildly alkaline.

The BC horizon has the same colors as the Bt horizon. Texture is very fine sandy loam, silt loam, or silty clay loam. Reaction is neutral or mildly alkaline.

The C horizon has the same range in colors and textures as the Bt horizon. Reaction ranges from neutral to moderately alkaline.

These soils are on natural levees of former channels of the Red River and its distributaries. Slopes range from 0 to 3 percent.

Soils of the Gallion series are fine-silty, mixed, thermic Typic Hapludalfs.

The Gallion soils are similar to the Memphis soils and are commonly near the Latanier, Lebeau, and Perry soils. The somewhat poorly drained Latanier soils and the poorly drained Lebeau and Perry soils are in lower positions than the Gallion soils. The Latanier soils have a clayey over loamy control section. The Lebeau and Perry soils have a very-fine control section. The Memphis soils formed in loess. They have a browner subsoil than the Gallion soils.

Typical pedon of Gallion silt loam, about 2 miles northwest of Morrow, 1 mile west of U.S Highway 71, 1,500 feet west of Bayou Petite Prairie, SW1/2NW1/4 sec. 32, T. 2 S., R. 4 E.

Ap—0 to 8 inches; brown (7.5YR 4/4) silt loam; weak fine granular structure; very friable; few fine roots; slightly acid; abrupt smooth boundary.

Iberia Series

The Iberia series consists of poorly drained, very slowly permeable soils that formed in clayey alluvium. These soils are in depressions on the natural levees of former channels of the Mississippi River and its distributaries. Slopes are less than 1 percent.

Soils of the Iberia series are fine, montmorillonitic, thermic Vertic Haplaquolls.

The Iberia soils are similar to the Judice soils and commonly are near the Baldwin, Loreauville, and Sharkey soils. The Baldwin and Loreauville soils are in higher positions than the Iberia soils. The Baldwin soils do not have a mollic epipedon and have an argillic horizon. The somewhat poorly drained Loreauville soils have a fine-silty control section. The Sharkey soils are in similar positions as the Iberia soils, and they do not have a mollic epipedon. The Judice soils are on the terrace uplands and contain more than 45 percent clay in the control section.

Typical pedon of Iberia clay, about 2 miles south of

slickensides 4 to 5 inches long; neutral; gradual wavy boundary.

BC—34 to 48 inches; gray (5Y 5/1) silty clay, common medium prominent yellowish brown (10YR 5/6) mottles; weak medium angular blocky structure; firm; very plastic; few slickensides; common fine black concretions of iron and manganese; neutral; clear smooth boundary.

2C—48 to 70 inches; grayish brown (10YR 5/2) silt loam; common medium distinct yellowish brown (10YR 5/8) and few medium distinct strong brown (7.5YR 5/8) mottles; massive; friable; few fine black concretions of iron and manganese; neutral.

Thickness of the solum ranges from 40 to 65 inches. The clay content in the textural control section ranges from 45 to 60 percent.

The A horizon has hue of 10YR, value of 2 or 3, and chroma of 1 or 2. It is 6 to 16 inches thick. Reaction ranges from slightly acid to mildly alkaline.

The Bg and BC horizons have hue of 10YR or 5Y, value of 4 or 5, and chroma of 1 or 2. Reaction ranges from neutral to moderately alkaline.

The 2C horizon has the same range in colors as the Bg horizon. Texture is silt loam to silty clay loam. Reaction ranges from neutral to moderately alkaline.

Jeanerette Series

The Jeanerette series consists of somewhat poorly

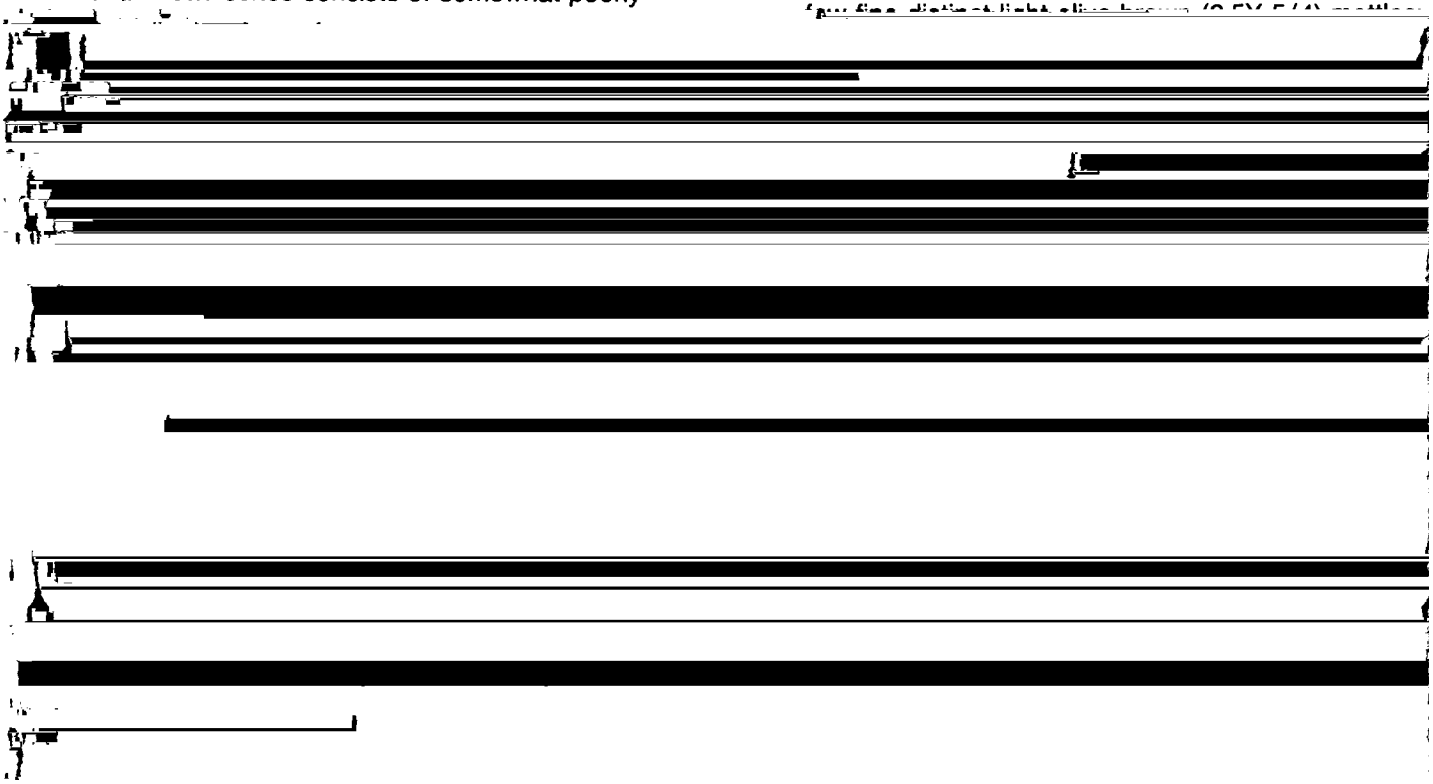
Bt2—12 to 18 inches; very dark gray (10YR 3/1) silty clay loam; common medium distinct grayish brown (2.5Y 5/2) mottles; moderate medium subangular blocky structure; firm; few fine roots; thick discontinuous black (10YR 2/1) clay films on vertical faces of peds; mildly alkaline; clear wavy boundary.

Btk1—18 to 28 inches; grayish brown (2.5Y 5/2) silty clay loam; few fine distinct light olive brown (2.5Y 5/4) mottles; moderate medium subangular blocky structure; firm; common fine roots; distinct discontinuous very dark gray (10YR 3/1) clay films on surfaces of peds; 15 to 20 percent white concretions of calcium carbonate 1/4 to 1/2 inch in diameter; few fine black concretions, moderately alkaline; clear wavy boundary.

Btk2—28 to 42 inches; grayish brown (2.5Y 5/2) silty clay loam; few fine distinct light olive brown (2.5Y 5/4) mottles; moderate medium subangular blocky structure; firm; few fine roots; distinct discontinuous dark gray (10YR 4/1) clay films on vertical faces of peds; few fine concretions of calcium carbonate; few fine black concretions; moderately alkaline; gradual wavy boundary.

BC—42 to 54 inches; grayish brown (2.5Y 5/2) silty clay loam; common fine distinct light olive brown (2.5Y 5/4) mottles; weak medium subangular blocky structure; firm; few fine black concretions; mildly alkaline; gradual wavy boundary.

C—54 to 60 inches; light olive gray (5Y 6/2) silt loam;



Soils of the Judice series are fine, montmorillonitic, thermic Vertic Haplaquolls.

Latanier Series

The Latanier series consists of somewhat poorly

on the alluvial plain of the Red River. Slopes are less than 1 percent.

Soils of the Lebeau series are very-fine, montmorillonitic, thermic Aquentic Chromuderts.

The Lebeau soils commonly are near the Gallion, Latanier, and Perry soils. The well drained Gallion soils have a fine-silty control section and are in higher positions than the Lebeau soils. The somewhat poorly drained Latanier soils have a clayey over loamy control section and are in slightly higher positions than the Lebeau soils. The Perry soils do not have intersecting

calcium carbonate up to 3 inches in diameter; mildly alkaline; clear smooth boundary.

2Cg—58 to 65 inches; gray (5Y 5/1) clay; common medium distinct light olive brown (2.5Y 5/4) mottles; massive; firm; few fine roots; few slickensides; mildly alkaline.

Reaction ranges from slightly acid to moderately alkaline throughout. Intersecting slickensides begin at a depth of 8 to 24 inches below the surface.

The Ap horizon has hue of 5YR, 7.5YR, and 10YR, value of 3 or 4, and chroma of 2 to 4. It is about 4 to 8

Ap—0 to 7 inches; very dark grayish brown (10YR 3/2) silt loam; weak medium subangular blocky structure parting to weak fine granular; friable; common fine roots; neutral; abrupt smooth boundary.

Bt—7 to 15 inches; grayish brown (2.5Y 5/2) silty clay loam; weak coarse prismatic structure parting to weak medium subangular blocky; firm; few fine roots; thick continuous black clay films on surfaces of peds; neutral; gradual wavy boundary.

Btk1—15 to 27 inches; grayish brown (2.5Y 5/2) silty clay loam; few fine distinct light olive brown (2.5Y 5/4) mottles; weak coarse prismatic structure parting to weak medium subangular blocky; firm; few fine roots; thick discontinuous black clay films on surfaces of peds; about 10 percent by volume concretions of calcium carbonate 1/2 to 2 centimeters in diameter; moderately alkaline; gradual wavy boundary.

[redacted]

common fine distinct yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure; friable; few fine roots; common fine pores; thin patchy clay films on some surfaces of peds; common fine black and brown accumulations; few fine and medium concretions of calcium carbonate; moderately alkaline; gradual wavy boundary.

B't—41 to 52 inches; grayish brown (2.5Y 5/2) loam; common fine distinct light olive brown (2.5Y 5/4) and coarse distinct gray (10YR 5/1) mottles; weak medium subangular blocky structure; friable; few fine roots; common fine pores; thin patchy clay films on some surfaces of peds; common fine black and

Loring Series

The Loring series consists of moderately well drained, slowly permeable soils that formed in loess. These soils are on ridgetops and side slopes on the terrace uplands. A fragipan is at a depth of 22 to 35 inches. Slopes range from 1 to 20 percent.

Soils of the Loring series are fine-silty, mixed, thermic Typic Fragiudalfs.

The Loring soils commonly are near the Coteau, Falaya, Memphis, and Muskogee soils. The somewhat poorly drained Coteau and Falaya soils, the Muskogee soils, and the well drained Memphis soils do not have a fragipan. The Falaya soils are coarse-silty and are in drainageways. The Muskogee soils are on side slopes and have a subsoil that is clayey in the lower part.

Typical pedon of Loring silt loam, 1 to 5 percent slopes, in Grand Prairie, 85 feet west of Louisiana [redacted]

Ap—0 to 7 inches; brown (10YR 4/3) silt loam; weak medium subangular blocky structure parting to weak fine granular; friable; common fine roots; strongly acid; abrupt smooth boundary.

BA—7 to 13 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable; common fine and medium roots; few fine discontinuous random tubular pores; distinct discontinuous clay films on faces of peds; strongly acid; gradual wavy boundary.

Bt1—13 to 22 inches; dark brown (7.5YR 4/4) silty clay loam; moderate medium subangular blocky structure; friable; common fine roots; few fine

inches thick between prisms; brittle; few fine roots between prisms; common fine discontinuous random tubular pores within prisms; strongly acid.

Thickness of the solum ranges from 45 to 75 inches. Depth to the fragipan ranges from 25 to 35 inches. Reaction ranges from very strongly acid to medium acid throughout.

The Ap or A horizon is 2 to 8 inches thick. It has hue of 10YR, value of 4, and chroma of 3, or it has hue of 7.5YR, value of 5, and chroma of 2.

The BA and Bt horizons have hues of 10YR or 7.5YR, value of 4, and chroma of 4. Texture is silt loam or silty clay loam.

The Btx horizon has the same range in colors and textures as the BA and Bt horizons. It is mottled in shades of brown and gray.

Mamou Series

The Mamou series consists of somewhat poorly drained, slowly permeable soils that formed in clayey alluvium of late Pleistocene age. These soils are on the natural levees of old stream channels in the terrace uplands. Slopes range from 1 to 3 percent.

Soils of the Mamou series are fine-silty, siliceous, thermic Aeric Albaqualfs.

The Mamou soils commonly are near the Crowley and Mowata soils. The Crowley soils are on broad convex ridges. The poorly drained Mowata soils are on flats and along drainageways. These soils have a fine textured control section.

Typical pedon of Mamou silt loam, 1 to 3 percent slopes, 0.5 mile east of Eunice, 0.6 mile north of U.S. Highway 190, 60 feet south of the Vivian Street extension, SW1/4NW1/4 sec. 29, T. 6 S., R. 1 E.

Ap—0 to 7 inches; grayish brown (10YR 5/2) silt loam;

moderate medium subangular blocky; firm; few distinct discontinuous gray clay films on surfaces of peds; few medium black concretions; medium acid; gradual wavy boundary.

C—34 to 60 inches; mottled pale brown (10YR 6/3), yellowish brown (10YR 5/6), and red (2.5YR 4/8) loam; massive; firm; few medium black concretions; slightly acid.

Thickness of the solum ranges from 20 to 50 inches.

The Ap horizon is 4 to 8 inches thick. It has hue of 10YR, value of 4 or 5, and chroma of 1 or 2. Reaction ranges from strongly acid to slightly acid.

The E horizon is 4 to 10 inches thick. It has hue of 10YR, value of 4 to 6, and chroma of 3 to 6. Reaction ranges from strongly acid to slightly acid.

The Bt horizon has ped coatings with hue of 10YR, value of 3 to 5, and chroma of 1 or 2. Ped interiors have hue of 10YR or 7.5YR, value of 3 to 6, and chroma of 4 to 6. Reaction ranges from strongly acid to slightly acid.

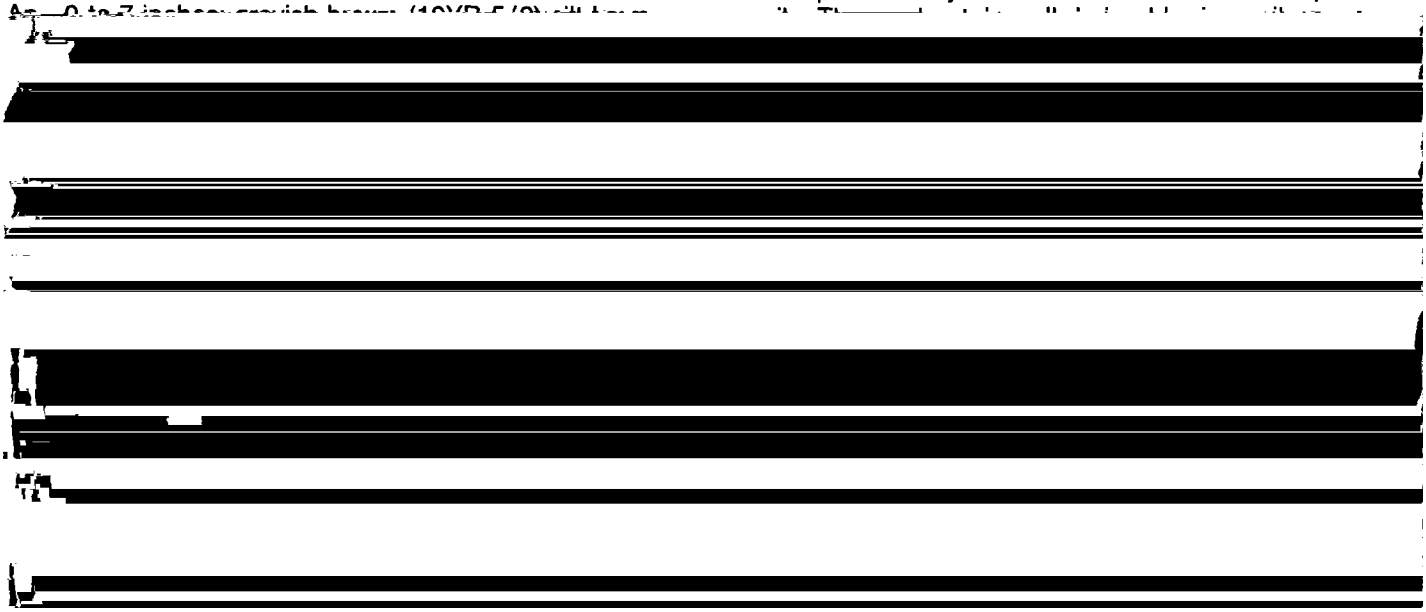
The C horizon is mottled in shades of brown, red, or gray. It is silty clay loam, loam, or silt loam. Reaction is slightly acid or neutral.

Memphis Series

The Memphis series consists of well drained, moderately permeable soils that formed in loess. These soils are on convex ridgetops and side slopes on the terrace uplands. Slopes range from 0 to 20 percent.

Soils of the Memphis series are fine-silty, mixed, thermic Typic Hapludalfs.

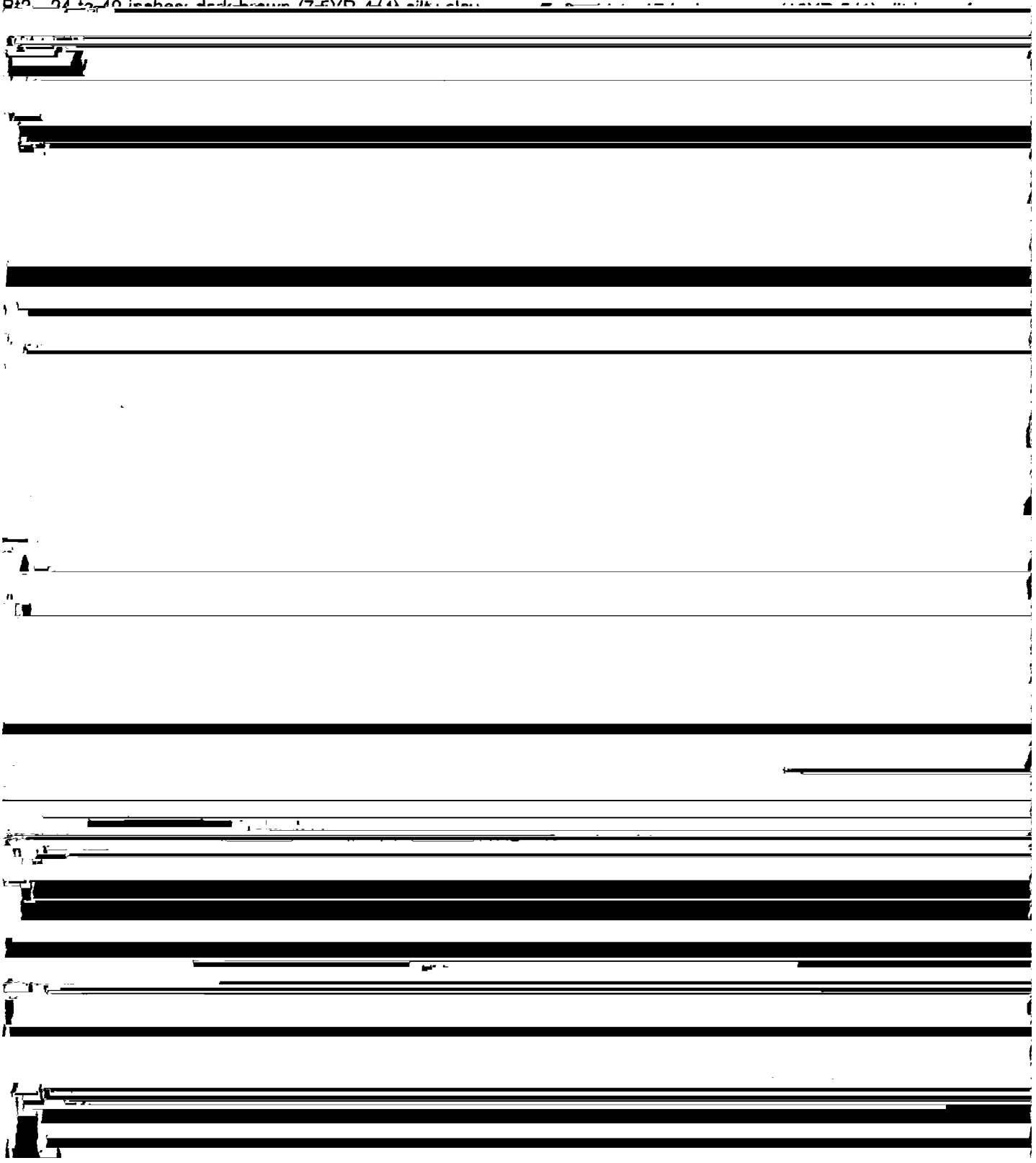
The Memphis soils are similar to the Gallion and Loring soils and commonly are near the Coteau, Falaya, and Frost soils. The Gallion soils formed in alluvium on flood plains. They have a redder hue than Memphis



coating on surfaces of peds; very strongly acid; gradual wavy boundary.

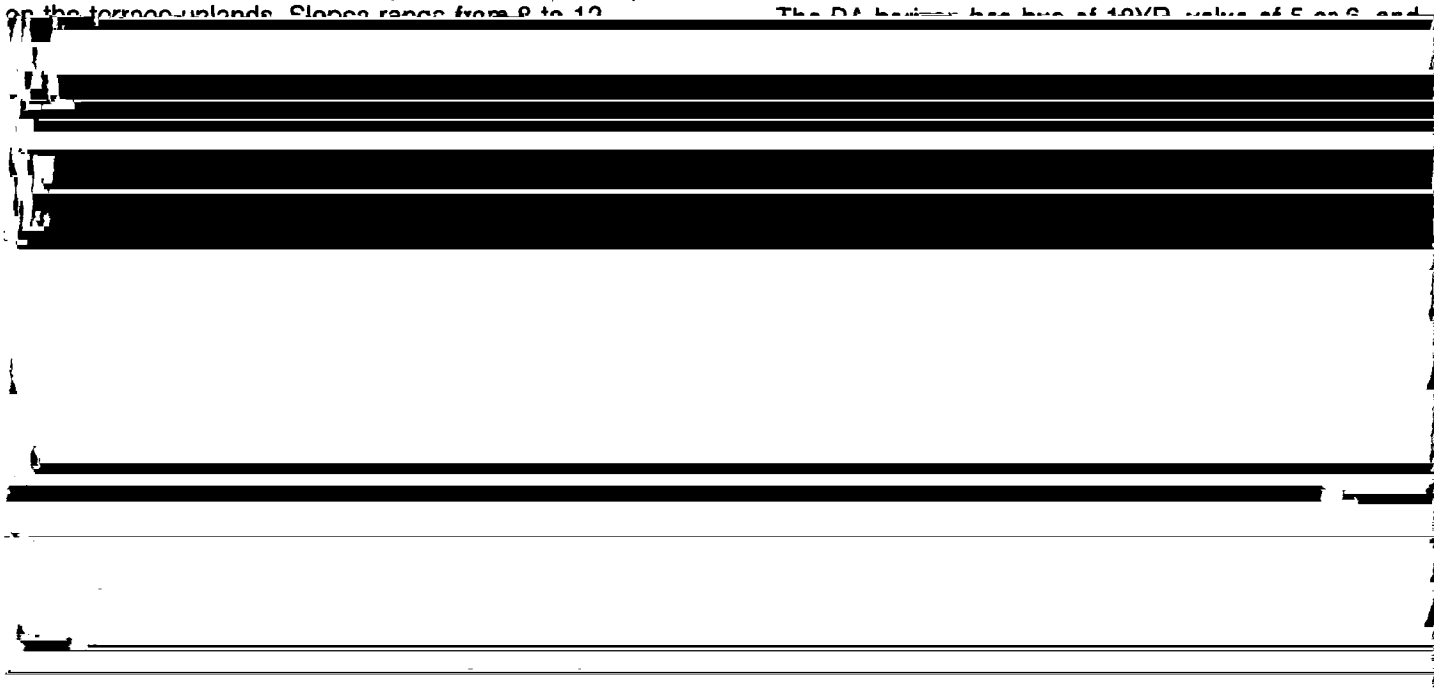
brownish gray (10YR 6/2) silt; medium acid; clear smooth boundary.

Bt2—24 to 40 inches; dark-brown (7.5YR 4/4) silt [illegible]



Muskogee Series

The Muskogee series consists of moderately well drained, slowly permeable soils that formed in thin loamy sediments over clayey sediments of Pleistocene age. These soils are on eroded escarpments and side slopes on the terrace uplands. Slopes range from 8 to 12



percent.

Soils of the Muskogee series are fine-silty, mixed, thermic Aquic Paleudalfs.

The Muskogee soils commonly are near the Loring and Memphis soils. The moderately well drained Loring soils formed in loess, have a fragipan, and are in higher positions than the Muskogee soils. The well drained Memphis soils are on the upper parts of the slopes and are silty throughout.

Typical pedon of Muskogee silt loam, in an area of Muskogee-Loring association, 8 to 20 percent slopes, severely eroded, 2 miles north of Grand Prairie, 3,000 feet west of a north-south field road, Spanish Land Grant 16, T. 4 S., R. 3 E.

Ap—0 to 4 inches; brown (10YR 4/3) silt loam; weak medium granular structure; friable; many fine roots; strongly acid; clear smooth boundary.

BA—4 to 11 inches: yellowish brown (10YR 5/4) silt

Thickness of the solum is 60 inches or more. Reaction ranges from very strongly acid to medium acid in the Ap, BA, and upper Bt horizons and from very strongly acid to mildly alkaline in the lower Bt and BC horizons.

The Ap horizon has hue of 10YR, value of 4 or 5, and chroma of 2 or 3. It is 4 or 5 inches thick.

The BA horizon has hue of 10YR, value of 5 or 6, and chroma of 4 or 6.

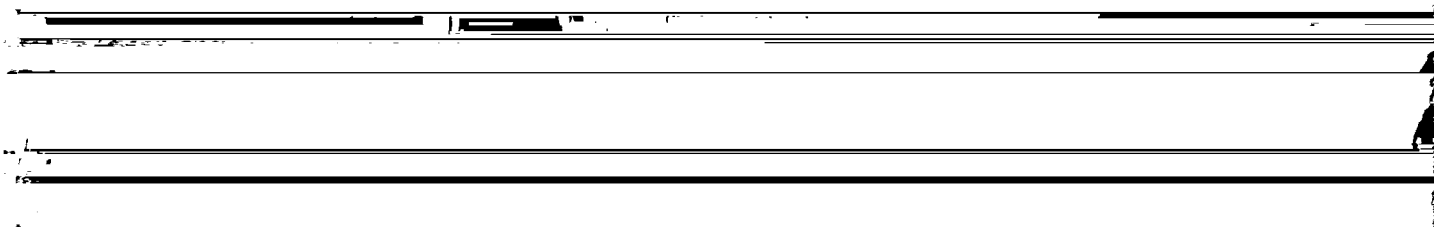
The Bt and BC horizons have hue of 10YR, value of 6 or 7, and chroma of 1 or 2, or they have hue of 10YR, value of 5, and chroma of 6 or 8, or they have hue of 7.5YR or 5YR, value of 5, and chroma of 6 or 8. Texture is silty clay or clay. Mottles in shades of brown or gray range from few to many.

Patoutville Series

The Patoutville series consists of somewhat poorly drained, slowly permeable soils that formed in loess. These soils are on broad, slightly convex ridgetops and gentle side slopes on the terrace uplands. Slopes range from 0 to 3 percent.

Soils of the Patoutville series are fine-silty, mixed, thermic Aeric Ochraqualfs.

The Patoutville soils commonly are near Calhoun, Crowley, Coteau, Frost, Frozard, and Jeanerette soils.



fine roots; few fine vesicular pores; thick continuous clay films on vertical surfaces of peds; neutral; clear wavy boundary.

Bt2—21 to 29 inches; grayish brown (10YR 5/2) silt loam; many fine distinct yellowish brown (10YR 5/6) and few fine prominent red (2.5YR 4/6) mottles; weak medium prismatic structure parting to moderate medium subangular blocky; firm; common fine roots; few fine vesicular pores; distinct patchy clay films on vertical surfaces of peds; common fine and few medium black concretions, neutral; gradual wavy boundary.

Bt3—29 to 40 inches; grayish brown (2.5Y 5/2) silt loam; many fine and medium distinct yellowish brown (10YR 5/6) mottles; weak medium prismatic structure parting to weak medium subangular blocky; firm; common fine roots; common fine vesicular pores; thin patchy clay films on surfaces of some peds; common fine and medium black concretions; neutral; gradual wavy boundary.

BC1—40 to 62 inches; light brownish gray (2.5Y 6/2) silt loam; common fine and medium distinct yellowish brown (10YR 5/6) mottles; weak coarse prismatic structure parting to weak medium subangular blocky; friable; few fine roots; few fine vesicular pores; thin patchy clay films in some root channels; common medium black concretions; neutral; gradual wavy boundary.

BC2—62 to 70 inches; light brownish gray (2.5Y 6/2) silt loam; many fine and medium distinct yellowish brown (10YR 5/6) mottles; weak coarse prismatic [illegible]

These soils are in back swamp areas along former channels of the Red River and its distributaries. Slopes are less than 1 percent.

Soils of the Perry series are very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts.

The Perry soils commonly are near the Gallion, Latanier, and Lebeau soils. The well drained Gallion soils are fine-silty, and the somewhat poorly drained Latanier soils have a clayey over loamy control section. These soils are in higher positions than the Perry soils. The Lebeau soils are in similar positions as the Perry soils, and they have intersecting slickensides.

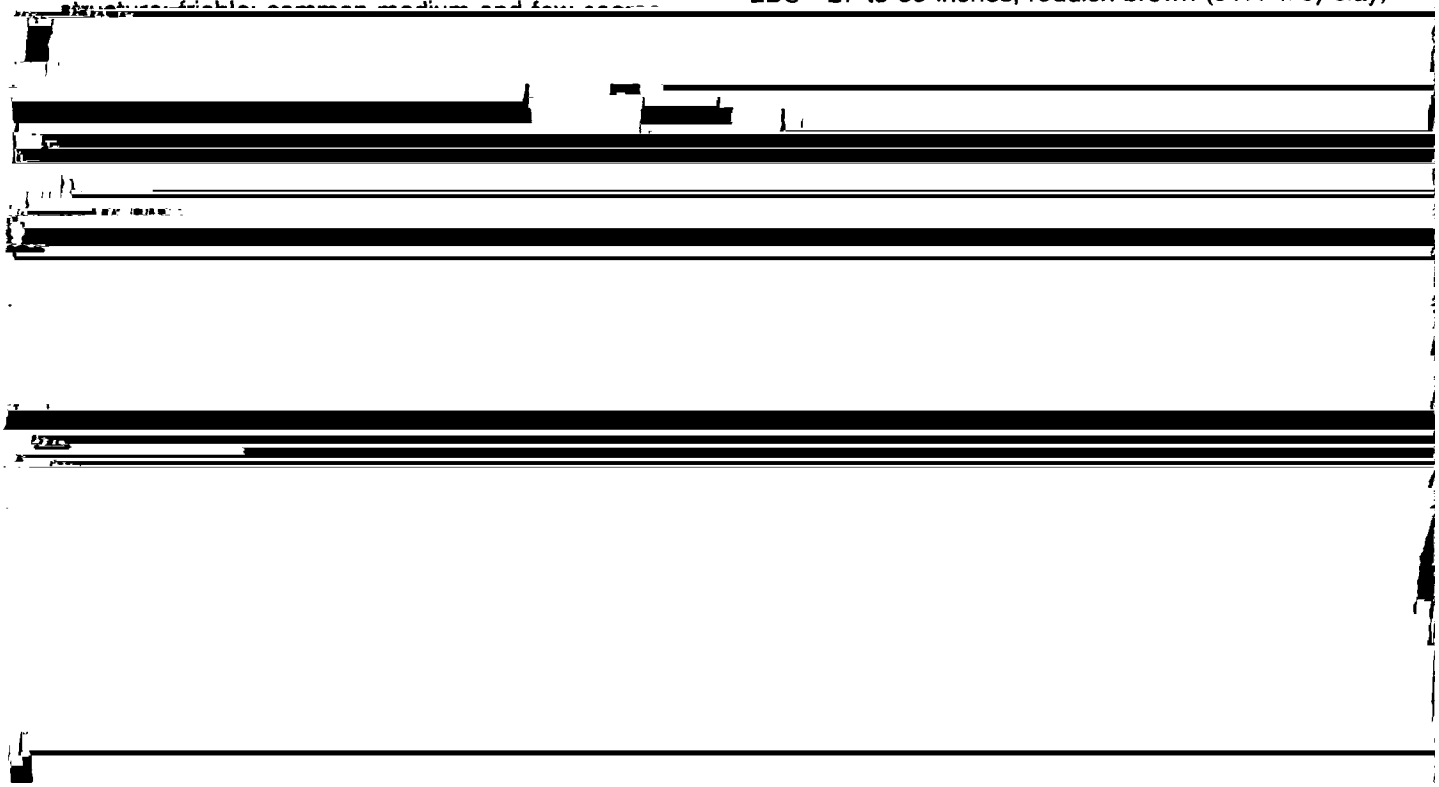
Typical pedon of Perry clay, frequently flooded, 2.75 miles east of Grand Prairie, 1.25 miles west of Bayou Cocodrie, Spanish Land Grant 72, T. 4 S., R. 4 E.

A—0 to 7 inches; very dark grayish brown (10YR 3/2) clay; moderate medium angular blocky structure; firm; plastic; common fine and medium roots; strongly acid; clear smooth boundary.

Bg1—7 to 13 inches; dark gray (10YR 4/1) clay; few fine distinct dark yellowish brown (10YR 4/4) mottles; moderate medium angular blocky structure; firm; very plastic; common fine and medium roots; strongly acid; gradual wavy boundary.

Bg2—13 to 27 inches; dark gray (10YR 4/1) clay; few fine distinct dark yellowish brown (10YR 4/4) mottles; moderate medium angular blocky structure; firm; very plastic; common fine roots; common shiny faces on peds; medium acid; clear wavy boundary.

2BC—27 to 38 inches; reddish brown (5YR 4/3) clay;



carbonate. Reaction ranges from neutral to moderately alkaline.

The A or Ap horizon is 4 to 8 inches thick. It has hue of 10YR, value of 3 or 4, and chroma of 1 or 2. Reaction

discontinuous distinct clay films on faces of peds; few fine black concretions of iron and manganese; strongly acid; gradual wavy boundary.

2C—42 to 60 inches; grayish brown (10YR 5/2) sandy loam; few medium distinct yellowish brown (10YR 5/4) mottles; massive; firm; few fine roots;

B/E—22 to 24 inches; grayish brown (10YR 5/2) silty clay loam; 15 percent light gray (10YR 7/1) silt loam; many fine prominent red (2.5YR 5/6) and

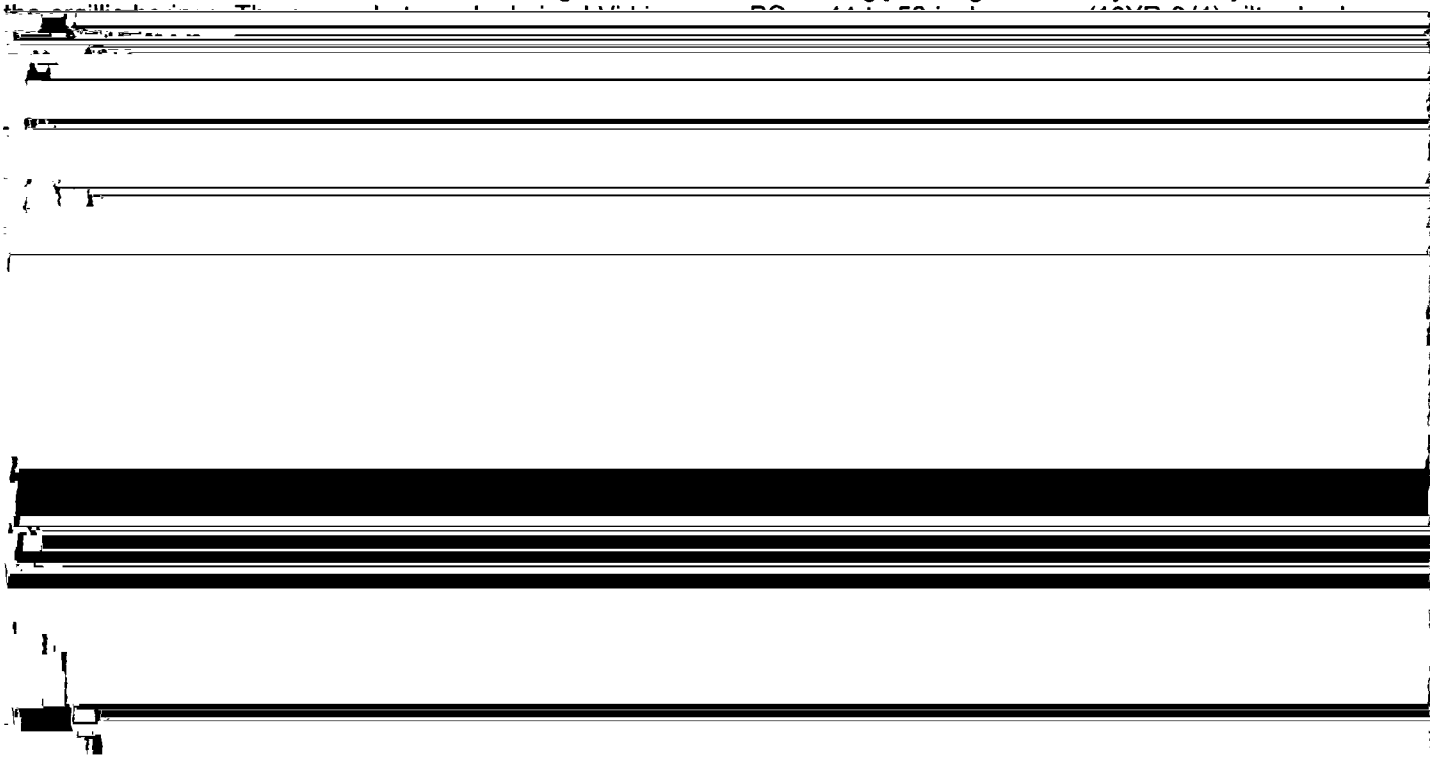
5/6) mottles; weak coarse prismatic structure

Soils of the Wrightsville series are fine, mixed, thermic Typic Glossaqualfs.

The Wrightsville soils are similar to the Calhoun soils and commonly are near the Acadia, Basile, Crowley, and Vidrine soils. The Calhoun soils are fine-silty. The somewhat poorly drained Acadia soils are on the side slopes of erosional stream channels and do not have tonguing of the subsurface layer into the subsoil. The Basile soils are in drainageways and are fine-silty. The Crowley soils are in higher positions than the Wrightsville soils and do not have an albic horizon that tongues into

peds; tongues of E material 2 to 3 inches wide extend to a depth of 32 inches; few fine black concretions; strongly acid; gradual wavy boundary.

Btg—32 to 44 inches; gray (10YR 6/1) silty clay; common medium distinct yellowish brown (10YR 5/6) mottles; weak medium prismatic structure parting to moderate medium subangular blocky; firm; few fine and medium roots; discontinuous distinct clay films on vertical faces of peds and in root channels; few fine dark brown concretions; very strongly acid; gradual wavy boundary.



Formation of the Soils

Bobby J. Miller, Department of Agronomy, Agricultural Experiment

one-half of the soils mapped in the parish formed in

all had one or more horizons with pH values greater than 6 within the depth sampled.

The formation, translocation, and accumulation of clay in the profile have been important processes during the development of most of the soils in St. Landry Parish. Silicon and alumina released as a result of weathering of minerals, such as pyroxenes, amphiboles, and feldspars,

The effect of a factor can differ from place to place, but the interaction of all the factors determines the kind of soil that forms. Many of the differences in soils cannot be attributed to differences in the effects of only one factor. For example, the organic matter content in the soils of St. Landry Parish is influenced by several factors including relief, parent material, and living organisms.

secondary clay minerals, such as kaolinite. Layer silicate minerals, such as biotite, glauconite, and montmorillonite, can also weather to form other clay minerals, such as

manner in which a given factor can influence a specific soil property. The following paragraphs describe the factors of soil formation as they relate to soils in the

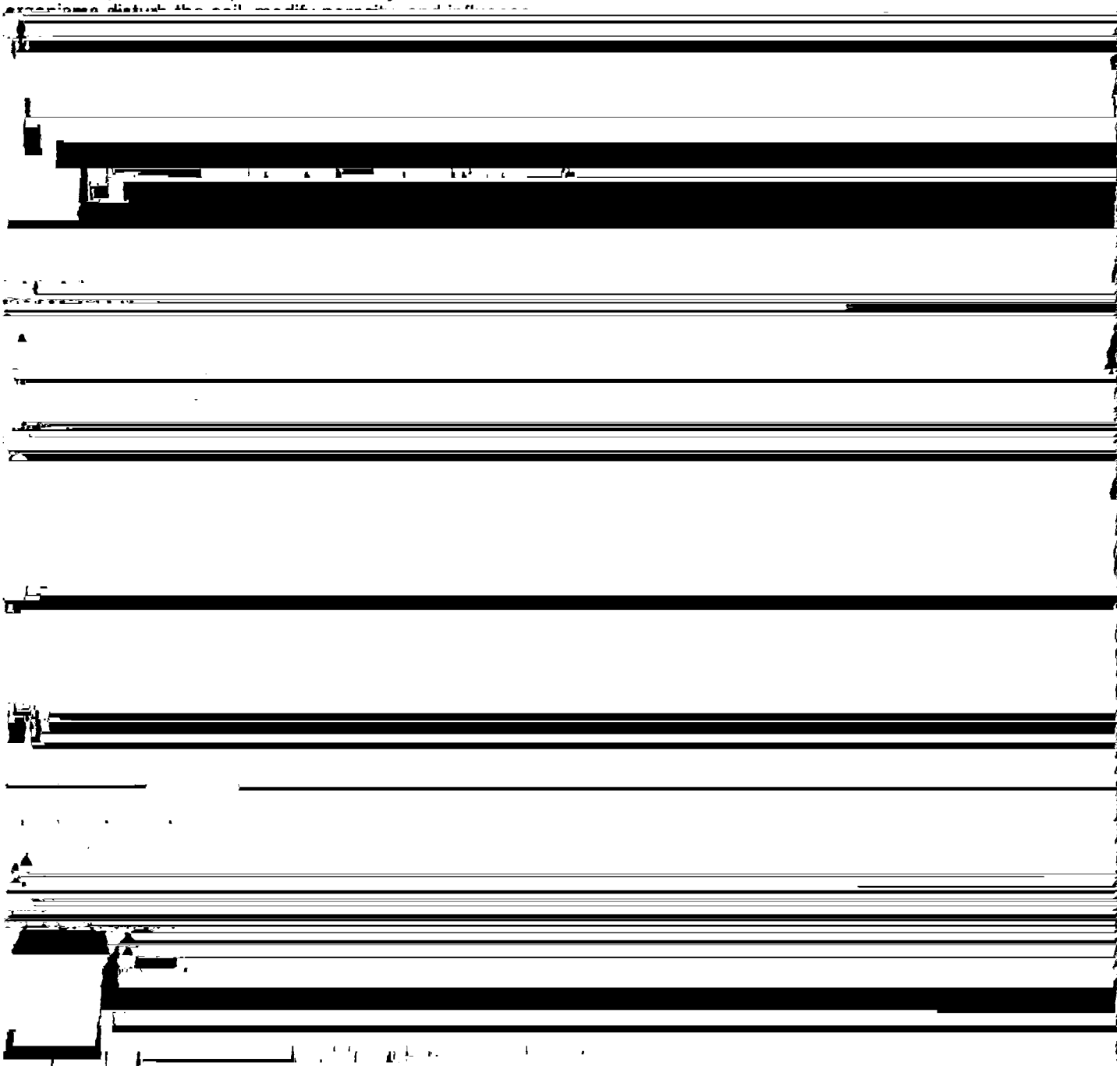
summer and early in fall when the soils are driest. During this time, cracks an inch or more wide and extending to a depth of more than 20 inches form. Cracks that are less extensive and less deep sometimes form in some of the less clayey soils, such as Mowata.

Living organisms

Living organisms are important in soil formation and are a major influence on the kind and extent of horizons that develop. Growth of plants and activity of other

and they decompose organic residues very slowly. Differences in decomposition by micro-organisms can result in larger accumulations of organic matter in soils that have restricted drainage, such as Judice soils, than in better drained soils, such as Patoutville soils. In general, for soils developed under both prairie and forest vegetation, the organic matter content is higher where the soil is more poorly drained and not aerated.

Relief



development within a soil are influenced by the length of

required for soils to form prominent horizons. In the survey area, possible differences in the time of soil formation amount to several thousand years for some of the soils.

The soils in the parish have formed in at least five different parent materials, and for a number of the soils, these differences coincide approximately with differences in the time of exposure to processes of soil formation.

The Prairie Formation is the oldest exposed sediment in the parish. It is the basic parent material of the Acadia, Basile, Crowley, Mamou, Mowata, Muskagee, Vidrine, Wrightsville, and possibly Judice soils. These soils are only in the western part of the parish, where accumulations of more recent deposits were thin. They contain a small admixture of the more recent deposits in

drained landscape positions, are among the most highly

have a wide range of slopes; they range from level to moderately sloping. The steeper soils are almost entirely on the east-facing escarpment to the upland terrace. Because of the silty nature of the parent material, the soils developed in loess are more erodible than the other soils in the area having comparable slopes. They have a surface layer of silt loam and a subsoil of silty clay loam or silt loam. The sand content is low throughout the profile and generally amounts to less than 10 percent. Recognizable horizons of secondary accumulation of clay have developed as a result of translocation of clay during soil formation.

Many characteristics of the soils developed in loess differ widely. These differences are mostly a result of difference in relief and natural vegetation.

the loamy natural levee deposits, whereas Lebeau and Perry soils formed in the clayey back swamp. Latanier soils formed in areas where 20- to 40-inch thick clayey sediments were deposited on loamy materials.

Gallion, Lebeau, Latanier, and Perry soils are unique in the parish in that they are much redder than the other soils. The soil colors are largely inherited from the parent material and are not appreciably different in color from the present day natural levee deposits along the Red River in Louisiana. Gallion soils are characterized by a B horizon of secondary accumulations of clay and by reaction that becomes less acid with depth. In many areas, the lower part of the solum has secondary accumulations of carbonates. The more clayey Lebeau, Latanier, and Perry soils lack the secondary accumulations of clays but may have secondary carbonate accumulations within the solum.

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Glossary

Aeration, soil. The exchange of air in soil with air from the atmosphere. The air in a well-aerated soil is similar to that in the atmosphere; the air in a poorly aerated soil is considerably higher in carbon dioxide and lower in oxygen.

Aggregate, soil. Many fine particles held in a single mass or cluster. Natural soil aggregates, such as granules, blocks, or prisms, are called peds. Clods are aggregates produced by tillage or logging.

Alluvium. Material, such as sand, silt, or clay, deposited

Cation. An ion carrying a positive charge of electricity. The common soil cations are calcium, potassium, magnesium, sodium, and hydrogen.

Cation-exchange capacity. The total amount of exchangeable cations that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. The term, as applied to soils, is synonymous with base-exchange capacity, but is more precise in meaning.

Plastic.—When wet, readily deformed by moderate pressure but can be pressed into a lump; will form a "wire" when rolled between thumb and forefinger.
Sticky.—When wet, adheres to other material and tends to stretch somewhat and pull apart rather than to pull free from other material.
Hard.—When dry, moderately resistant to pressure; can be broken with difficulty between thumb and forefinger.
Soft.—When dry, breaks into powder or individual grains under very slight pressure.
Cemented.—Hard; little affected by moistening.

Contour stripcropping. Growing crops in strips that follow the contour. Strips of grass or close-growing crops are alternated with strips of clean-tilled crops or summer fallow.

Control section. The part of the soil on which classification is based. The thickness varies among different kinds of soil, but for many it is that part of the soil profile between depths of 10 inches and 40 or 80 inches.

Corrosive. High risk of corrosion to uncoated steel or deterioration of concrete.

Moderately well drained soils are wet for only a short time during the growing season, but periodically they are wet long enough that most mesophytic crops are affected. They commonly have a slowly pervious layer within or directly below the solum, or periodically receive high rainfall, or both.

Somewhat poorly drained.—Water is removed slowly enough that the soil is wet for significant periods during the growing season. Wetness markedly restricts the growth of mesophytic crops unless artificial drainage is provided. Somewhat poorly drained soils commonly have a slowly pervious layer, a high water table, additional water from seepage, nearly continuous rainfall, or a combination of these.

Poorly drained.—Water is removed so slowly that the soil is saturated periodically during the growing season or remains wet for long periods. Free water is commonly at or near the surface for long enough during the growing season that most mesophytic crops cannot be grown unless the soil is artificially drained. The soil is not continuously saturated in

Excess fines (in tables). Excess silt and clay are in the soil. The soil is not a source of gravel or sand for construction purposes.

Fertility, soil. The quality that enables a soil to provide plant nutrients, in adequate amounts and in proper balance, for the growth of specified plants when light, moisture, temperature, tilth, and other growth factors are favorable.

Flood plain. A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Fragipan. A loamy, brittle subsurface horizon low in

E horizon.—The mineral horizon in which the main feature is loss of silicate clay, iron, aluminum, or some combination of these.

B horizon.—The mineral horizon below an O, A, or E horizon. The B horizon is, in part, a layer of transition from the overlying horizon to the underlying C horizon. The B horizon also has distinctive characteristics, such as accumulation of clay, sesquioxides, humus, or a combination of these; prismatic or blocky structure; redder or browner colors than those in the A horizon; or a combination of these. The combined A and B horizons are generally called the solum, or true soil.

application. The rate of water intake in inches per hour is expressed as follows:

Less than 0.2	very low
0.2 to 0.4	low
0.4 to 0.75	moderately low
0.75 to 1.25	moderate
1.25 to 1.75	moderately high
1.75 to 2.5	high
More than 2.5	very high

Irrigation. Application of water to soils to assist in production of crops. Methods of irrigation are—

Mottling, soil. Irregular spots of different colors that vary in number and size. Mottling generally indicates poor aeration and impeded drainage. Descriptive terms are as follows: abundance—*few, common,* and *many*; size—*fine, medium,* and *coarse*; and contrast—*faint, distinct,* and *prominent*. The size measurements are of the diameter along the greatest dimension. *Fine* indicates less than 5 millimeters (about 0.2 inch); *medium*, from 5 to 15 millimeters (about 0.2 to 0.6 inch); and *coarse*, more than 15 millimeters (about 0.6 inch).

Plasticity index. The numerical difference between the liquid limit and the plastic limit; the range of moisture content within which the soil remains plastic.

Plastic limit. The moisture content at which a soil changes from semisolid to plastic.

Plowpan. A compacted layer formed in the soil directly below the plowed layer.

soils of a series have horizons that are similar in composition, thickness, and arrangement.

Shrink-swell. The shrinking of soil when dry and the swelling when wet. Shrinking and swelling can damage roads, dams, building foundations, and other structures. It can also damage plant roots.

Silt. As a soil separate, individual mineral particles that

Unless the soils are artificially drained, the water can be removed only by percolation or evapotranspiration.

Poor filter (in tables). Because of rapid permeability, the soil may not adequately filter effluent from a waste disposal system.

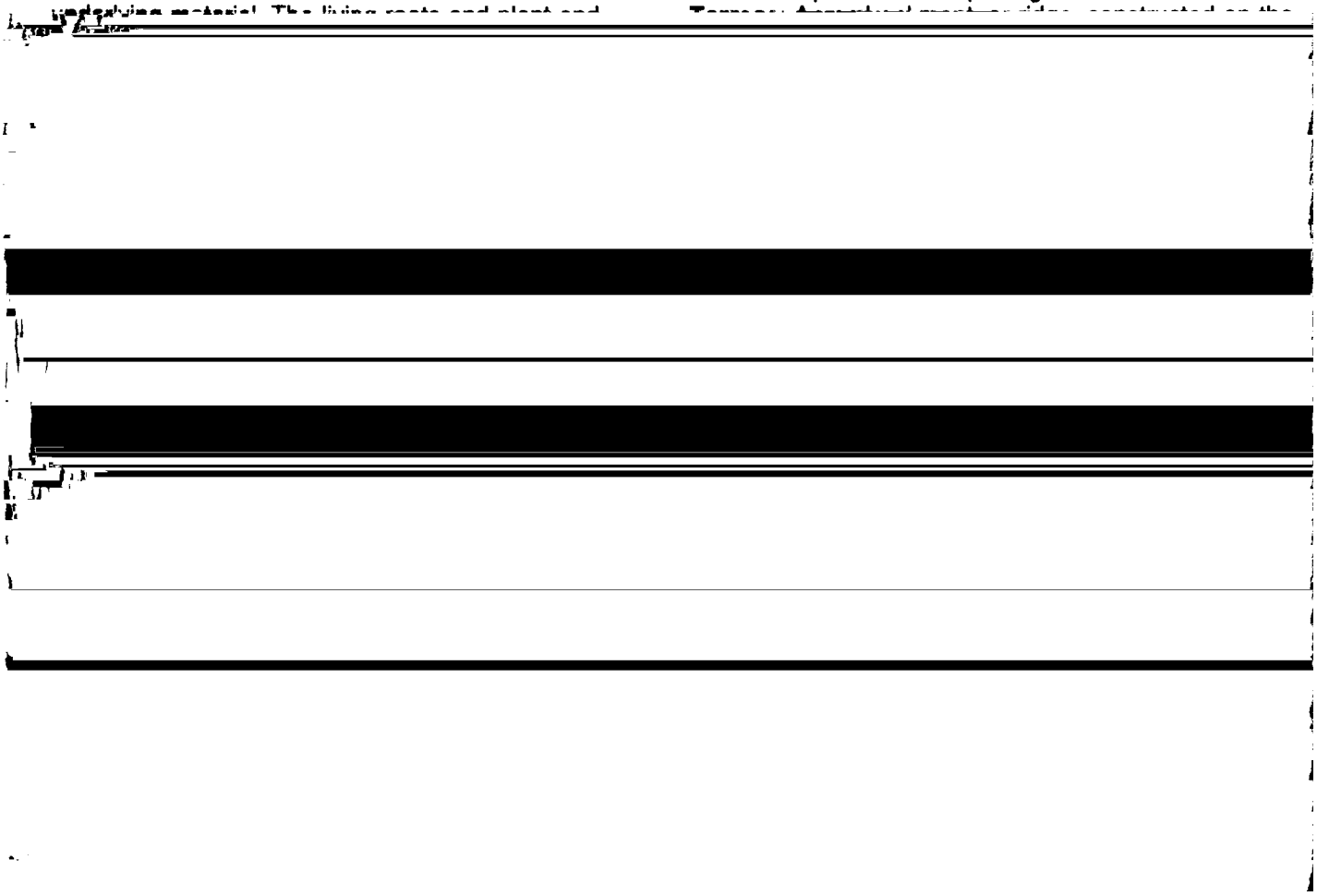
Productivity, soil. The capability of a soil for producing

millimeter) to the lower limit of very fine sand (0.05 millimeter). As a soil textural class, soil that is 80 percent or more silt and less than 12 percent clay.

Site index. A designation of the quality of a forest site based on the height of the dominant stand at an arbitrarily chosen age. For example, if the average height attained by dominant and codominant trees in

horizons. Generally, the characteristics of the material in these horizons are unlike those of the

because they differ in ways too small to be of consequence in interpreting their use and behavior.



Tables

TABLE 1.--TEMPERATURE AND PRECIPITATION

(Data were recorded in the period 1951-73 at Melville, Louisiana)

Month	Temperature						Precipitation				
	Average daily maximum	Average daily minimum	Average	2 years in 10 will have-- Maximum temperature higher than--	2 years in 10 will have-- Minimum temperature lower than--	Average number of growing degree days*	Average	2 years in 10 will have-- Less than--	2 years in 10 will have-- More than--	Average number of days with 0.10 inch or more	Average snowfall
	°F	°F	°F	°F	°F	Units	In	In	In		In
January----	62.4	40.8	51.6	79	19	155	4.41	2.42	6.02	6	.1
February---	65.1	43.1	54.1	81	23	189	5.20	2.29	7.57	7	.2
March------	71.6	48.9	60.3	85	27	333	4.35	1.82	6.39	6	.0
April------	78.9	57.2	68.1	88	36	543	4.66	1.46	7.20	5	.0
May--------	84.4	63.5	74.0	92	48	744	5.33	1.93	8.05	6	.0
June-------	89.7	69.6	79.7	96	58	891	4.04	1.57	6.02	6	.0
July-------	90.9	72.1	81.5	97	66	977	5.06	2.50	7.14	9	.0
August-----	90.4	71.4	80.9	97	61	958	3.70	1.97	5.10	7	.0
September--	86.8	67.3	77.1	95	50	813	4.11	1.10	6.52	6	.0
October----	79.7	55.9	67.8	91	35	552	2.94	.62	4.77	4	.0
November---	70.6	47.5	59.1	85	27	282	3.60	1.50	5.29	5	.0
December---	64.8	42.9	53.9	81	20	185	6.16	3.76	8.31	7	.0
Yearly:											
Average--	77.9	56.7	67.3	---	---	---	---	---	---	---	---
Extreme--	---	---	---	99	17	---	---	---	---	---	---
Total----	---	---	---	---	---	6,622	53.56	43.63	62.96	74	.3

* A growing degree day is a unit of heat available for plant growth. It can be calculated by adding the maximum and minimum daily temperatures, dividing the sum by 2, and subtracting the temperature below which growth is minimal for the principal crops in the area (50 °F).

TABLE 2.--FREEZE DATES IN SPRING AND FALL

[Data were recorded in the period 1951-73
at Melville, Louisiana]

Probability	Temperature		
	24 °F or lower	28 °F or lower	32 °F or lower
Last freezing temperature in spring:			
1 year in 10 later than--	February 20	March 8	March 26
2 years in 10 later than--	February 12	February 26	March 18
5 years in 10 later than--	January 26	February 8	March 4
First freezing temperature in fall:			
1 year in 10 earlier than--	November 30	November 7	October 24
2 years in 10 earlier than--	December 9	November 15	November 1
5 years in 10 earlier than--	December 28	December 1	November 16

TABLE 3.--GROWING SEASON

[Data were recorded in the period 1951-73
at Melville, Louisiana]

Probability	Daily minimum temperature during growing season		
	Higher than 24 °F	Higher than 28 °F	Higher than 32 °F
	Days	Days	Days
9 years in 10	302	264	226
8 years in 10	312	275	236
5 years in 10	335	295	256
2 years in 10	>365	316	277
1 year in 10	>365	327	287

IFIED USES

	Intensive recreation areas
l suited: moderate low oads.	Well suited------
s, w and eability, low oads.	Poorly suited: wetness, moderately slow and very slow permeability, floods.
wetness, -swell, oderately ity, low oads.	Moderately well suited: wetness, floods, moderate and moderately slow permeability.*
oods,	Not suited: floods, wetness.
wetness, -swell, eability, or roads.	Poorly suited: wetness, floods, very slow permeability, too clayey.
wetness, -swell, eability, or roads.	Poorly suited: wetness, floods, very slow permeability, too clayey.
oods,	Not suited: floods wetness.
---------	Well suited----------
l s, slow slow low oads.**	Moderately well suited: wetness, slow and moderately slow permeability, erodes easily.

—Continued

	Intensive recreation areas
ess,	Poorly suited: wetness, slow permeability.
ess,	Poorly suited: wetness, slow and moderately slow permeability.
ess, low	Moderately well suited: wetness, slow and moderately slow permeability, erodes easily.
ess, ity,	Poorly suited: wetness, very slow permeability.
ess, ity,	Poorly suited: wetness, very slow permeability.

TABLE 5.--ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Map symbol	Soil name	Acres	Percent
Ac	Acadia silt loam, 1 to 3 percent slopes	1,410	0.2
Bd	Baldwin silty clay loam	28,010	4.7
Bh	Baldwin-Sharkey complex, gently undulating	24,466	4.1
BL	Basile and Wrightsville soils, frequently flooded	1,420	0.2
Cc	Calhoun silt loam	13,208	2.2
Cd	Commerce silt loam	6,694	1.1
CE	Commerce and Convent soils, gently undulating, frequently flooded	7,885	1.3
Cf	Convent very fine sandy loam	3,203	0.5
Ch	Convent very fine sandy loam, gently undulating	14,824	2.5
Ck	Convent-Commerce complex, gently undulating, occasionally flooded	9,719	1.6
Co	Coteau silt loam, 0 to 1 percent slopes	18,890	3.2
Cp	Coteau silt loam, 1 to 3 percent slopes	9,759	1.6
Cw	Crowley silt loam	9,329	1.6
De	Dundee silt loam	18,983	3.2
Df	Dundee silty clay loam	5,076	0.8
Dr	Dundee-Alligator complex, gently undulating	3,084	0.5
Ds	Dundee-Sharkey complex, gently undulating	7,409	1.2
FA	Falaya soils, frequently flooded	3,556	0.6
FC	Fausse and Sharkey soils	23,075	3.9
Fo	Frost silt loam	28,350	4.7
Fr	Frost silt loam, occasionally flooded	5,730	1.0
Fz	Frozard silt loam	1,970	0.3
Ga	Gallion silt loam	53,071	8.8
Go	Gallion silty clay loam	7,221	1.2
Gp	Gallion-Perry complex, gently undulating	6,410	1.1
Ia	Iberia clay	3,816	0.6
Je	Jeanerette silt loam	19,009	3.2
Ju	Judice silty clay loam	1,352	0.2
La	Latanier clay	2,815	0.5
Lb	Lebeau clay	29,093	4.9
Lc	Lebeau clay, occasionally flooded	30,176	5.1
Le	Loreauville silt loam	2,676	0.4
Lp	Loring silt loam, 1 to 5 percent slopes	3,929	0.7
Lr	Loring silt loam, 5 to 8 percent slopes	1,122	0.2
Ma	Mamou silt loam, 1 to 3 percent slopes	1,395	0.2
Mc	Memphis silt loam, 0 to 1 percent slopes	3,646	0.6
Md	Memphis silt loam, 1 to 5 percent slopes	11,895	2.0
Me	Memphis silt loam, 5 to 8 percent slopes	3,309	0.6
Mf	Memphis silt loam, 8 to 20 percent slopes	3,416	0.6
Mt	Mowata silt loam	5,720	1.0
MU	Muskogee-Loring association, 8 to 20 percent slopes, severely eroded	804	0.1
Pa	Patoutville silt loam, 0 to 1 percent slopes	24,831	4.2
Pb	Patoutville silt loam, 1 to 3 percent slopes	2,164	0.4
Pc	Patoutville-Crowley complex	12,900	2.2
Pr	Perry clay, frequently flooded	5,830	1.0
Sh	Sharkey clay	53,299	8.8
So	Sharkey clay, occasionally flooded	21,252	3.6
Sp	Sharkey clay, frequently flooded	14,648	2.5
Ts	Tensas-Sharkey complex, gently undulating	12,573	2.1
Wv	Wrightsville-Vidrine complex	7,734	1.3
	Large water areas	5,187	0.9
	Total	597,343	100.0

TABLE 6.--LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE

[Yields are those that can be expected under a high level of management. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil]

Map symbol and soil name	Land capability	Soybeans	Corn	Sweet potatoes	Rice	Common bermudagrass	Bahiagrass
		Bu	Bu	Bu	Bu	AUM*	AUM*
Ac---------- Acadia	IIIe	25	---	---	100	5.0	6.5
Bd---------- Baldwin	IIIw	38	90	250	130	7.0	8.0
Bh----------	IIIw	35	---	---	130	6.5	---
BL---------- Basile and Wrightsville	Vw	---	---	---	---	4.0	---
Cc---------- Calhoun	IIIw	25	---	240	120	5.0	6.5
Cd---------- Commerce	IIw	43	115	---	---	8.0	9.5
CE---------- Commerce and Convent	Vw	---	---	---	---	6.5	---
Cf---------- Convent	IIw	43	115	---	---	8.0	9.5
Ch---------- Convent	IIw	43	115	---	---	8.0	9.5
Ck---------- Convent-Commerce	IIIw	40	105	---	---	7.5	8.5
Co---------- Coteau	IIw	33	85	290	110	6.5	8.0
Cp---------- Coteau	IIe	30	83	280	---	6.5	8.0
Cw---------- Crowley	IIIw	33	85	275	130	6.5	7.5
De, Df---------- Dundee	IIw	38	90	290	---	7.0	8.5
Dr---------- Dundee-Alligator	IIIw	33	75	---	---	6.5	---
Ds----------	IIIw	35	80	---	---	6.5	---

TABLE 6.--LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land capability	Soybeans	Corn	Sweet potatoes	Rice	Common bermudagrass	Bahiagrass
FC---------- Fausse and Sharkey	VIIw	---	---	---	---	---	---
Fo---------- Frost	IIIw	30	---	240	105	6.0	6.5
Fr---------- Frost	IVw	25	---	---	105	4.5	6.0
Fz---------- Frozard	IIIw	20	65	200	110	5.0	6.0

TABLE 6.--LAND CAPABILITY CLASSES AND YIELDS PER ACRE OF CROPS AND PASTURE--Continued

Map symbol and soil name	Land capability	Soybeans	Corn	Sweet potatoes	Rice	Common bermudagrass	Bahiagrass
		Bu	Bu	Bu	Bu	AUM*	AUM*
Me---------- Memphis	IIIe	28	---	250	---	6.5	8.0
Mf---------- Memphis	VIe	---	---	---	---	5.0	6.5
Mt---------- Mowata	IIIw	30	---	230	120	6.0	6.5
MU---------- Muskogee-Loring	VIe	---	---	---	---	5.0	6.0
Pa---------- Patoutville	IIw	33	85	290	120	6.5	8.0
Pb---------- Patoutville	IIe	30	83	280	---	6.5	8.0
Pc---------- Patoutville-Crowley	IIIw	33	85	290	123	6.5	8.0
Pr---------- Perry	Vw	---	---	---	---	5.0	---
Sh---------- Sharkey	IIIw	37	---	---	130	7.0	---
So---------- Sharkey	IVw	32	---	---	130	6.0	---
Sp---------- Sharkey	Vw	---	---	---	---	5.0	---
Ts---------- Tensas-Sharkey	IIIw	35	80	---	125	6.5	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY

[Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available]

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Equipment limitation	Seedling mortality	Plant competition	Common trees	Site index	
Ac---------- Acadia	2w	Moderate	Slight	Severe	Loblolly pine------- Slash pine---------- Longleaf pine-------	86 86 70	Loblolly pine, slash pine.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Equipment limitation	Seedling mortality	Plant competition	Common trees	Site index	
CE:*							
Commerce	2w	Moderate	Slight	Severe	Eastern cottonwood	120	Eastern cottonwood, American sycamore.
					Overcup oak	---	
					Water hickory	---	
					Sugarberry	---	
					Drummond maple	---	
Convent	2w	Moderate	Slight	Severe	Drummond maple	---	Eastern cottonwood, American sycamore.
					Overcup oak	---	
					Water hickory	---	
					Eastern cottonwood	120	
					Sweetgum	110	
					American sycamore	---	
					Nuttall oak	90	
					Sugarberry	---	
Cf, Ch	1w	Moderate	Slight	Severe	Green ash	80	Eastern cottonwood, American sycamore.
Convent					Eastern cottonwood	120	
					Sweetgum	110	
					American sycamore	---	
					Water oak	---	
					Pecan	---	
					Boxelder	---	
					Sugarberry	---	
Ck:*							
Convent	1w	Moderate	Slight	Severe	Green ash	80	Eastern cottonwood, American sycamore.
					Eastern cottonwood	120	
					Sweetgum	110	
					Boxelder	---	
					American sycamore	---	

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

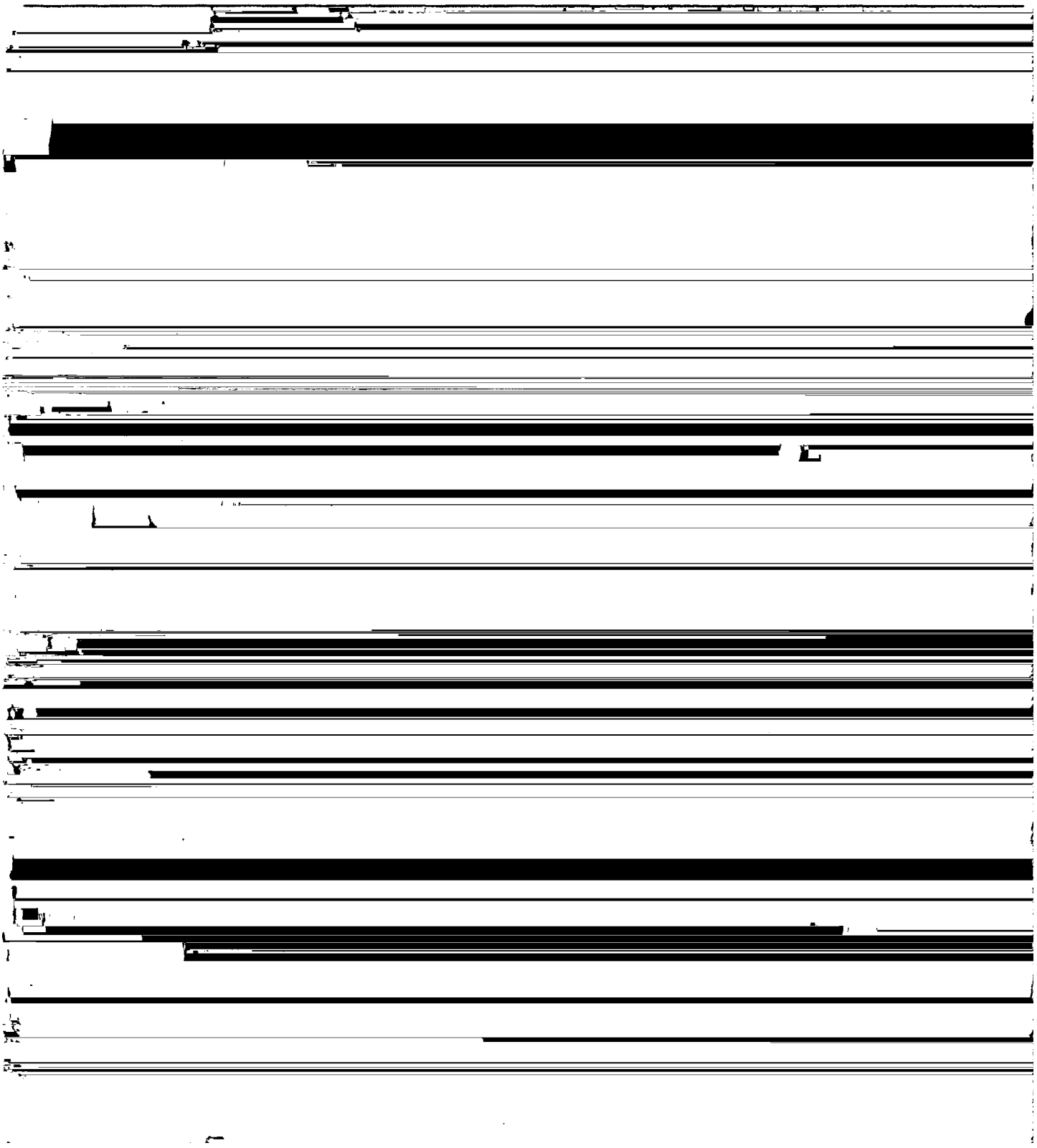


TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Equipment limitation	Seedling mortality	Plant competition	Common trees	Site index	
Fz---------- Frozard	3w	Moderate	Slight	Moderate	Green ash---------- Sweetgum---------- Water oak----------	70 85 85	Sweetgum.
Ga, Go---------- Gallion	2o	Slight	Slight	Moderate	Green ash---------- Cherrybark oak------ Sweetgum---------- Water oak---------- Pecan---------- American sycamore--- Eastern cottonwood-- Swamp chestnut oak--	80 95 83 --- --- --- 100 ---	Eastern cottonwood, American sycamore.
Gp:* Gallion----------	2o	Slight	Slight	Moderate	Green ash---------- Cherrybark oak------ Sweetgum---------- Water oak---------- Pecan---------- American sycamore--- Eastern cottonwood-- Swamp chestnut oak--	80 95 83 --- --- --- 100 ---	Eastern cottonwood, American sycamore.
Perry----------	2w	Severe	Moderate	Severe	Overcup oak--------- Eastern cottonwood-- Green ash---------- Sweetgum---------- Water oak---------- Pecan---------- Water hickory-------	--- 90 72 92 --- --- ---	Eastern cottonwood, sweetgum.
Ia---------- Iberia	2w	Severe	Severe	Severe	Green ash---------- Eastern cottonwood-- Sweetgum----------	80 95 90	Eastern cottonwood, sweetgum.
Je---------- Jeanerette	2w	Moderate	Slight	Severe	Green ash---------- Eastern cottonwood-- Water oak---------- Pecan---------- American sycamore--- Cherrybark oak------	80 120 --- --- --- 90	Eastern cottonwood.
Ju---------- Judice	2w	Severe	Severe	Severe		---	Eastern cottonwood, American sycamore.
La---------- Latanier	2w	Moderate	Moderate	Severe	Green ash---------- Cherrybark oak------ Water oak---------- Pecan---------- Sweetgum---------- Eastern cottonwood-- American sycamore---	80 90 90 --- 90 110 ---	Eastern cottonwood, American sycamore.
Lb, Lc---------- Lebeau	2w	Severe	Moderate	Severe	Overcup oak--------- Nuttall oak--------- Sweetgum---------- Green ash---------- American elm--------- Sugarberry---------- Water hickory-------	--- 80 80 75 --- --- ---	Green ash, eastern cottonwood, sweetgum, American sycamore.

See footnote at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Equipment limitation	Seedling mortality	Plant competition	Common trees	Site index	
Le Loreauville	1w	Moderate	Slight	Severe	Green ash Eastern cottonwood Water oak Pecan American sycamore Cherrybark oak	80 120 --- --- --- 90	Eastern cottonwood.
Lp, Lr Loring	2o	Slight	Slight	Severe	Cherrybark oak Loblolly pine Sweetgum Water oak	86 95 90 90	Loblolly pine, cherrybark oak, sweetgum, yellow-poplar.
Ma Mamou	2w	Moderate	Slight	Severe	Loblolly pine Slash pine	90 90	Loblolly pine, slash pine.
Mc, Md, Me, Mf Memphis	1o	Slight	Slight	Moderate	Cherrybark oak Loblolly pine Sweetgum	100 105 90	Cherrybark oak, loblolly pine, yellow-poplar.
Mt Mowata	2w	Severe	Moderate	Severe	Loblolly pine Slash pine Sweetgum	90 90 90	Loblolly pine, slash pine.
MU:*							
Muskogee	3o	Slight	Slight	Moderate	Sweetgum Loblolly pine Water oak Southern red oak	80 --- --- ---	Loblolly pine, eastern redcedar, Shumard oak, water oak, sweetgum.
Loring	2o	Slight	Slight	Severe	Cherrybark oak Loblolly pine Sweetgum Water oak	86 95 90 90	Loblolly pine, cherrybark oak, sweetgum, yellow-poplar.
Pa, Pb Patoutville	2w	Moderate	Slight	Severe	Loblolly pine Slash pine Sweetgum Water oak Cherrybark oak	95 95 86 --- 93	Loblolly pine, slash pine.
Pc:*							
Patoutville	2w	Moderate	Slight	Severe	Loblolly pine Slash pine Sweetgum Water oak Cherrybark oak	95 95 86 --- 93	Loblolly pine, slash pine.
Crowley	2w	Severe	Moderate	Severe	Slash pine Loblolly pine	90 90	Slash pine, loblolly pine.
Pr Perry	3w	Severe	Severe	Severe	Overcup oak Eastern cottonwood Green ash Water hickory	--- 85 70 ---	Eastern cottonwood, sweetgum.

See footnote at end of table.

TABLE 7.--WOODLAND MANAGEMENT AND PRODUCTIVITY--Continued

Map symbol and soil name	Ordination symbol	Management concerns			Potential productivity		Trees to plant
		Equipment limitation	Seedling mortality	Plant competition	Common trees	Site index	
Sh---------- Sharkey	2w	Severe	Moderate	Severe	Green ash----------	85	Eastern cottonwood, American sycamore, sweetgum.
					Sweetgum----------	90	
					Water oak----------	---	
					American elm--------	---	
					Nuttall oak---------	---	
					Sugarberry----------	---	
So, Sp---------- Sharkey	3w	Severe	Severe	Severe	Green ash----------	---	Eastern cottonwood.
					Overcup oak---------	---	
					Eastern cottonwood--	---	
					Nuttall oak---------	---	
					Sugarberry----------	---	
					Honeylocust---------	---	
					Baldcypress---------	---	
Ts:* Tensas----------	2w	Severe	Moderate	Severe	Green ash----------	80	Eastern cottonwood, American sycamore.
					Cherrybark oak------	---	
					Water oak----------	95	
					American elm--------	---	
					Sweetgum----------	100	
					Sugarberry----------	---	
					Nuttall oak---------	---	
Sharkey----------	2w	Severe	Moderate	Severe	Green ash----------	85	Eastern cottonwood, American sycamore, sweetgum.
					Sweetgum----------	90	
					Water hickory-------	---	
					Water oak----------	---	
					Nuttall oak---------	---	
					Sugarberry----------	---	
Wv:* Wrightsville-------	3w	Severe	Moderate	Severe	Loblolly pine-------	80	Loblolly pine, sweetgum, water oak, willow oak.
					Sweetgum----------	80	
					Water oak----------	80	
Vidrine----------	2w	Severe	Slight	Severe	Loblolly pine-------	90	Loblolly pine, slash pine.
					Slash pine----------	90	
					Sweetgum----------	---	

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 8.--RECREATIONAL DEVELOPMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." Absence of an entry indicates that the soil was not rated]

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Ac Acadia	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, erodes easily.	Severe: wetness.
Bd Baldwin	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, erodes easily.	Severe: wetness.
Bh:*					
Baldwin	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, erodes easily.	Severe: wetness.
Sharkey	Severe: flooding, wetness, percs slowly.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey.	Severe: wetness, too clayey.
BL:*					
Basile	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness, flooding.	Severe: wetness, erodes easily.	Severe: wetness, flooding.
Wrightsville	Severe: flooding, wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, flooding, percs slowly.	Severe: wetness, erodes easily.	Severe: wetness, flooding.
Cc Calhoun	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, erodes easily.	Severe: wetness.
Cd Commerce	Severe: flooding.	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.
CE:*					
Commerce	Severe: flooding.	Moderate: flooding, wetness, percs slowly.	Severe: flooding.	Moderate: wetness, flooding.	Severe: flooding.
Convent	Severe: flooding.	Moderate: flooding, wetness.	Severe: flooding.	Moderate: wetness, flooding.	Severe: flooding.
Cf, Ch Convent	Severe: flooding.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.
Ck:*					
Convent	Severe: flooding.	Moderate: wetness.	Moderate: wetness, flooding.	Moderate: wetness.	Moderate: wetness, flooding.

See footnote at end of table.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Ck:* Commerce	Severe: flooding.	Moderate: wetness, percs slowly.	Moderate: wetness, flooding.	Moderate: wetness.	Moderate: wetness, flooding.
Co Coteau	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.
Cp Coteau	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: slope, wetness, percs slowly.	Severe: erodes easily.	Moderate: wetness.
Cw Crowley	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.
De, Df Dundee	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: wetness.	Moderate: wetness.	Moderate: wetness.
Dr:* Dundee	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: slope, wetness.	Moderate: wetness.	Moderate: wetness.
Alligator	Severe: flooding, wetness, percs slowly.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey, erodes easily.	Severe: wetness, too clayey.
Ds:* [illegible]	Moderate:	Moderate:	Moderate:	Moderate:	Moderate:

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Fr---------- Frost	Severe: flooding, wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, erodes easily.	Severe: wetness.
Fz---------- Frozard	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Slight----------	Moderate: wetness.
Ga---------- Gallion	Slight----------	Slight----------	Slight----------	Slight----------	Slight.
Go---------- Gallion	Slight----------	Slight----------	Slight----------	Slight----------	Slight.
Gp:* Gallion----------	Slight----------	Slight----------	Moderate: slope	Severe: erodes easily	Slight.
Perry----------	Severe: flooding, wetness, percs slowly.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey.	Severe: wetness, too clayey.
Ia---------- Iberia	Severe: wetness, percs slowly, flooding.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey.	Severe: wetness, too clayey.
Je---------- Jeanerette	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.
Ju---------- Judice	Severe: wetness, percs slowly, flooding.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.
La---------- Latanier	Severe: wetness, percs slowly, flooding.	Severe: too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: too clayey.	Severe: too clayey.
Lb, Lc---------- Lebeau	Severe: flooding, wetness, percs slowly.	Severe: too clayey, wetness, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey.	Severe: wetness, too clayey.
Le---------- Loreauville	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.
Lp---------- Loring	Moderate: wetness, percs slowly.	Moderate: wetness, percs slowly.	Moderate: slope, wetness, percs slowly.	Slight----------	Slight.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Ma---------- Mamou	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: wetness, erodes easily.	Severe: wetness.
Mc---------- Memphis	Slight----------	Slight----------	Slight----------	Slight----------	Slight.
Md---------- Memphis	Slight----------	Slight----------	Moderate: slope.	Severe: erodes easily.	Slight.
Me---------- Memphis	Slight----------	Slight----------	Severe: slope.	Severe: erodes easily.	Slight.

TABLE 8.--RECREATIONAL DEVELOPMENT--Continued

Map symbol and soil name	Camp areas	Picnic areas	Playgrounds	Paths and trails	Golf fairways
Sp---------- Sharkey	Severe: flooding, wetness, percs slowly.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness, flooding.	Severe: wetness, too clayey.	Severe: wetness, flooding, too clayey.
Ts:* Tensas----------	Severe: wetness, percs slowly.	Severe: too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: too clayey.	Severe: too clayey.
Sharkey----------	Severe: flooding, wetness, percs slowly.	Severe: wetness, too clayey, percs slowly.	Severe: too clayey, wetness.	Severe: wetness, too clayey.	Severe: wetness, too clayey.
Wv:* Wrightsville---------	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, percs slowly.	Severe: wetness, erodes easily.	Severe: wetness.
Vidrine----------	Severe: wetness.	Moderate: wetness, percs slowly.	Severe: wetness.	Severe: erodes easily.	Moderate: wetness.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 9.--WILDLIFE HABITAT

[See text for definitions of "good," "fair," "poor," and "very poor." Absence of an entry indicates that the soil was not rated]

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Shrubs	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
Ac---------- Acadia	Fair	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Bd---------- Baldwin	Fair	Fair	Fair	Good	---	Good	Good	Good	Fair	Good	Good.
Bh:* Baldwin----------	Fair	Fair	Fair	Good	---	Good	Good	Fair	Fair	Good	Fair.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
BL:* Basile----------	Poor	Fair	Fair	Fair	---	Fair	Good	Good	Fair	Fair	Good.
Wrightsville------	Poor	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Cc---------- Calhoun	Poor	Fair	Fair	Good	Good	Good	Good	Good	Fair	Fair	Good.
Cd---------- Commerce	Good	Good	Good	Good	---	Good	Fair	Fair	Good	Good	Fair.
CE:* Commerce----------	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Fair	Good	Fair.
Convent----------	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Fair	Good	Fair.
Cf, Ch---------- Convent	Good	Good	Good	Good	---	Good	Fair	Fair	Good	Good	Fair.

TABLE 9.--WILDLIFE HABITAT--Continued

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Shrubs	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
FA*---------- Falaya	Poor	Fair	Fair	Good	Good	Fair	Fair	Fair	Fair	Good	Fair.
FC:*											
Fausse----------	Very poor.	Very poor.	Very poor.	Poor	---	Poor	Good	Good	Very poor.	Poor	Good.
Sharkey----------	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Poor	Fair	Fair.
Fo, Fr---------- Frost	Fair	Fair	Fair	Good	Good	Good	Good	Good	Fair	Good	Good.
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Ga, Go---------- Gallion	Good	Good	Good	Good	---	Good	Poor	Very poor.	Good	Good	Very poor.
Gp:*											
Gallion----------	Good	Good	Good	Good	---	Good	Poor	Very poor.	Good	Good	Very poor.
Perry----------	Fair	Fair	Fair	Good	---	Good	Good	Good	Fair	Good	Good.

TABLE 9.--WILDLIFE HABITAT--Continued

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--		
	Grain and seed crops	Grasses and legumes	Wild herbaceous plants	Hardwood trees	Coniferous plants	Shrubs	Wetland plants	Shallow water areas	Openland wildlife	Woodland wildlife	Wetland wildlife
MU:*											
Muskogee	Poor	Fair	Good	Good	Good	Good	Poor	Very poor.	Good	Good	Very poor.
Loring	Poor	Fair	Good	Good	Good	Good	Very poor.	Very poor.	Fair	Good	Very poor.
Pa, Pb--Patoutville	Good	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Pc:*											
Patoutville	Good	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair.
Crowley	Fair	Fair	Fair	Fair	Good	Good	Good	Good	Fair	Fair	Good.
Pr--Perry	Poor	Fair	Fair	Fair	---	Fair	Fair	Fair	Fair	Fair	Fair.
Sh--Sharkey	Fair	Fair	Fair	Good	---	Good	Good	Good	Fair	Good	Good.
So--Sharkey	Fair	Fair	Fair	Good	---	Good	Good	Good	Fair	Good	Good.
Sp--Sharkey	Poor	Fair	Fair	Good	---	Fair	Fair	Fair	Poor	Fair	Fair.
Ts:*											
Tensas	Fair	Fair	Fair	Good	---	Good	Poor	Very poor.	Fair	Good	Fair.
Sharkey	Fair	Fair	Fair	Good	---	Good	Good	Good	Fair	Good	Good.
Wv:*											
Wrightsville	Fair	Fair	Fair	Fair	Fair	Fair	Good	Good	Fair	Fair	Good.
Vidrine	Fair	Good	Good	Fair	Good	Good	Fair	Fair	Good	Good	Fair.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 10.--BUILDING SITE DEVELOPMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation]

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Ac---------- Acadia	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: low strength, wetness, shrink-swell.	Severe: wetness.
Bd----------	Severe:	Severe:	Severe:	Severe:	Severe:

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Ck:* Convent----------	Severe: wetness.	Severe: flooding.	Severe: flooding.	Severe: flooding.	Moderate: wetness,

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Fr---------- Frost	Severe: wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: low strength, wetness, flooding.	Severe: wetness.
Fz---------- Frozard	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, wetness.	Moderate: wetness.
Ga, Go---------- Gallion	Slight----------	Moderate: shrink-swell.	Moderate: shrink-swell.	Severe: low strength.	Slight.
Gp:* Gallion----------	Slight----------	Moderate: shrink-swell.	Moderate: shrink-swell.	Severe: low strength.	Slight.
Perry----------	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, wetness.	Severe: wetness, too clayey.
Ia---------- Iberia	Severe: wetness, too clayey.	Severe: wetness, shrink-swell, low strength, flooding.	Severe: wetness, shrink-swell, low strength, flooding.	Severe: low strength, wetness.	Severe: wetness, too clayey.
Je---------- Jeanerette	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength.	Moderate: wetness.
Ju---------- Judice	Severe: wetness.	Severe: wetness, shrink-swell, flooding.	Severe: wetness, shrink-swell, flooding.	Severe: low strength, wetness, shrink-swell.	Severe: wetness.
La---------- Latanier	Severe: wetness.	Severe: wetness, shrink-swell, flooding.	Severe: wetness, shrink-swell, flooding.	Severe: low strength, shrink-swell.	Severe: too clayey.
Lb---------- Lebeau	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, wetness.	Severe: wetness, too clayey.
Lc---------- Lebeau	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, low strength.	Severe: wetness, too clayey.
Le---------- Loreauville	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength.	Moderate: wetness.
Lp---------- Loring	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Severe: low strength.	Slight.
Lr---------- Loring	Severe: wetness.	Moderate: wetness.	Moderate: wetness, slope.	Severe: low strength.	Slight.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

Map symbol and soil name	Shallow excavations	Dwellings without basements	Small commercial buildings	Local roads and streets	Lawns and landscaping
Ma---------- Mamou	Severe: wetness.	Severe: wetness.	Severe: wetness.	Severe: low strength, wetness.	Severe: wetness.
Mc, Md---------- Memphis	Slight----------	Slight----------	Slight----------	Severe: low strength.	Slight.
Me---------- Memphis	Slight----------	Slight----------	Moderate: slope.	Severe: low strength.	Slight.
Mf---------- Memphis	Moderate: slope.	Moderate: slope.	Severe: slope.	Severe: low strength.	Moderate: slope.
Mt---------- Mowata	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: low strength, wetness, shrink-swell.	Severe: wetness.
MU:*					
Muskogee---------	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: low strength, shrink-swell.	Moderate: wetness.
Loring----------	Severe: wetness, slope.	Severe: slope.	Severe: slope.	Severe: low strength, slope.	Severe: slope.
Pa, Pb---------- Patoutville	Severe: wetness.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.	Severe: low strength.	Slight.
Pc:*					
Patoutville------	Severe: wetness.	Moderate: wetness, shrink-swell.	Moderate: wetness, shrink-swell.	Severe: low strength.	Slight.
Crowley----------	Severe: wetness.	Severe: wetness, shrink-swell.	Severe: wetness, shrink-swell.	Severe: low strength, wetness, shrink-swell.	Severe: wetness.
Pr---------- Perry	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, wetness, flooding.	Severe: wetness, flooding, too clayey.
Sh---------- Sharkey	Severe: wetness.	Severe: wetness, shrink-swell, flooding.	Severe: wetness, shrink-swell, flooding.	Severe: low strength, wetness.	Severe: wetness, too clayey.
So---------- Sharkey	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, wetness, flooding.	Severe: wetness, too clayey.
Sp---------- Sharkey	Severe: wetness.	Severe: flooding, wetness, shrink-swell.	Severe: flooding, wetness, shrink-swell.	Severe: low strength, wetness, flooding.	Severe: wetness, flooding, too clayey.

See footnote at end of table.

TABLE 10.--BUILDING SITE DEVELOPMENT--Continued

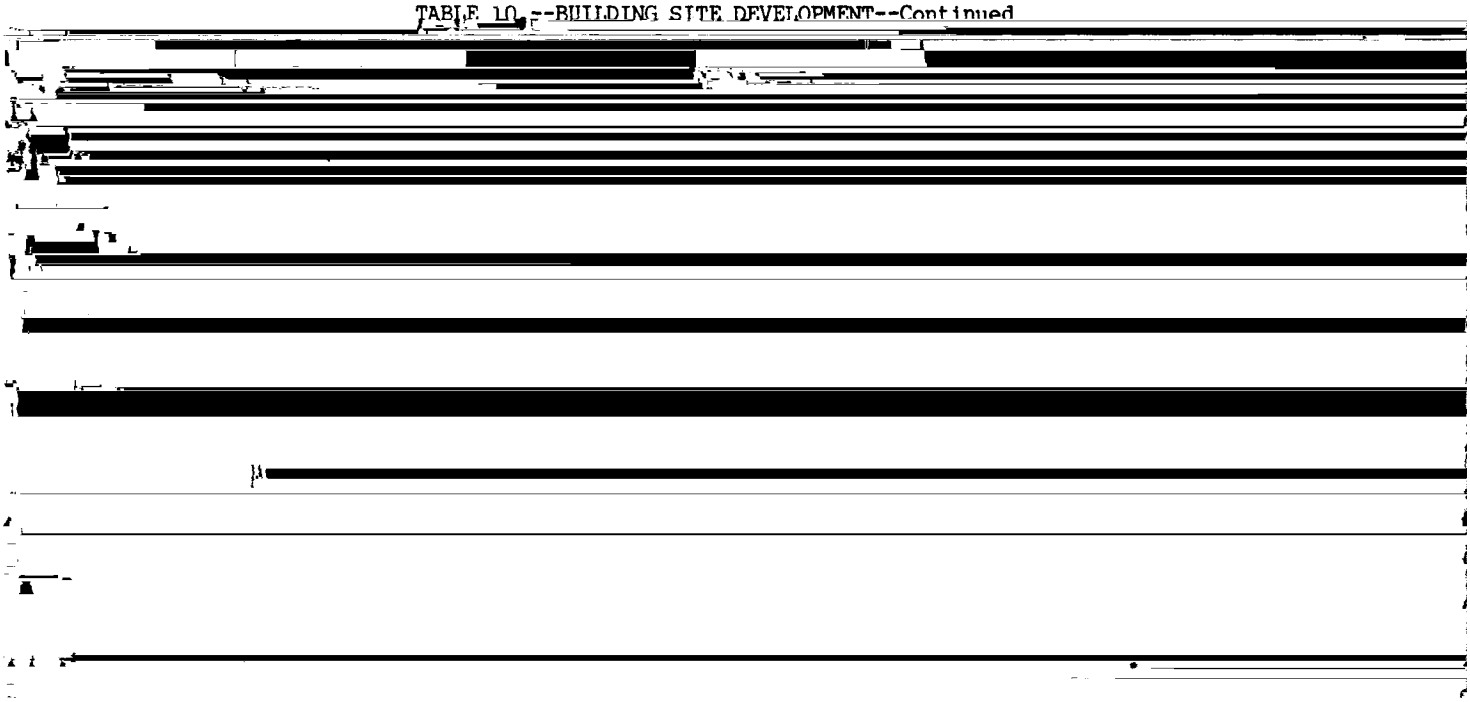


TABLE 11.--SANITARY FACILITIES

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "good," and other terms. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation]

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Ac Acadia	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Bd Baldwin	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Bh:* Baldwin	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Sharkey	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
BL:* Basile	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
Wrightsville	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack, wetness.
Cc Calhoun	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Cd Commerce	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: thin layer.
CE:*					

TABLE 11.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Ck:*					
Convent	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Fair: wetness.
Commerce	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: thin layer.
Co, Cp	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Moderate: wetness.	Fair: too clayey, wetness.
Coteau					
Cw	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Crowley					
De, Df	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: wetness.
Dundee					
Dr:*					
Dundee	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: wetness.
Alligator	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Ds:*					
Dundee	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: wetness.
Sharkey	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
FA*	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
Falaya					
FC:*					
Fausse	Severe: flooding, ponding, percs slowly.	Severe: flooding, ponding.	Severe: flooding, ponding, too clayey.	Severe: flooding, ponding.	Poor: too clayey, hard to pack, ponding.
Sharkey	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack, wetness.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Fo---------- Frost	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Fr---------- Frost	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness.	Severe: flooding, wetness.	Poor: wetness.
Fz---------- Frozard	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Ga, Go---------- Gallion	Moderate: percs slowly.	Moderate: seepage.	Moderate: too clayey.	Slight----------	Fair: too clayey.
Gp:* Gallion----------	Moderate: percs slowly.	Moderate: seepage, slope.	Moderate: too clayey.	Slight----------	Fair: too clayey.
Perry----------	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Ia---------- Iberia	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Je---------- Jeanerette	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Ju---------- Judice	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
La---------- Latanier	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Lb---------- Lebeau	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Lc---------- Lebeau	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack, wetness.
Le---------- Loreauville	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
Lp, Lr Loring	Severe: wetness, percs slowly.	Severe: wetness.	Moderate: wetness.	Moderate: wetness.	Fair: wetness.
Ma Mamou	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Mc Memphis	Moderate: percs slowly.	Moderate: seepage.	Slight	Slight	Good.
Md, Me Memphis	Moderate: percs slowly.	Moderate: seepage, slope.	Slight	Slight	Good.
Mf Memphis	Moderate: percs slowly, slope.	Severe: slope.	Moderate: slope.	Moderate: slope.	Fair: slope.
Mt Mowata	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
MU:*					
Muskogee	Severe: wetness, percs slowly.	Severe: slope, wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Loring	Severe: wetness, percs slowly, slope.	Severe: slope, wetness.	Severe: slope.	Severe: slope.	Poor: slope.
Pa, Pb Patoutville	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey wetness.
Pc:*					
Patoutville	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Fair: too clayey, wetness.
Crowley	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Pr Perry	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack, wetness.
Sh Sharkey	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.

See footnote at end of table.

TABLE 11.--SANITARY FACILITIES--Continued

Map symbol and soil name	Septic tank absorption fields	Sewage lagoon areas	Trench sanitary landfill	Area sanitary landfill	Daily cover for landfill
So, Sp---------- Sharkey	Severe: flooding, wetness, percs slowly.	Severe: flooding, wetness.	Severe: flooding, wetness, too clayey.	Severe: flooding, wetness.	Poor: too clayey, hard to pack, wetness.
Ts:* Tensas----------	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness.	Severe: wetness.	Poor: wetness.
Sharkey----------	Severe: wetness, percs slowly.	Severe: flooding, wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Wv:* Wrightsville-------	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.
Vidrine----------	Severe: wetness, percs slowly.	Severe: wetness.	Severe: wetness, too clayey.	Severe: wetness.	Poor: too clayey, hard to pack, wetness.

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 12.--CONSTRUCTION MATERIALS

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "good," "fair," and other terms. The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation]

Map symbol and soil name	Roadfill	Topsoil
Ac---------- Acadia	Poor: low strength, wetness, shrink-swell.	Poor: thin layer, wetness.
Bd---------- Baldwin	Poor: low strength, wetness, shrink-swell.	Poor: thin layer, wetness.
Bh:*		
Baldwin---------	Poor: low strength, wetness, shrink-swell.	Poor: thin layer, wetness.
Sharkey---------	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
BL:*		
Basile----------	Poor: low strength, wetness.	Poor: wetness.
Wrightsville----	Poor: low strength, wetness, shrink-swell.	Poor: thin layer, wetness.
Cc---------- Calhoun	Poor: low strength, wetness.	Poor: wetness.
Cd---------- Commerce	Poor: low strength.	Fair: thin layer.
CE:*		
Commerce--------	Poor: low strength.	Fair: too clayey, thin layer.
Convent---------	Fair: wetness.	Good.
Cf, Ch---------- Convent	Fair: wetness.	Good.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Topsoil
Ck:*		
Convent	Fair: wetness.	Good.
Commerce	Poor: low strength.	Fair: thin layer.
Co, Cp Coteau	Poor: low strength.	Good.
Cw Crowley	Poor: low strength, wetness.	Poor: thin layer, wetness.
De, Df Dundee	Fair: wetness.	Good.
Dr:*		
Dundee	Fair: wetness.	Good.
Alligator	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Ds:*		
Dundee	Fair: wetness.	Good.
Sharkey	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
FA* Falaya	Fair: thin layer, wetness.	Good.
FC:*		
Fausse	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Sharkey	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Fo, Fr Frost	Poor: low strength, wetness.	Poor: wetness.
Fz Frozard	Poor: low strength, wetness.	Fair: area reclaim, thin layer.

See footnote at end of table.

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Topsoil
Ga---------- Gallion	Fair: low strength.	Good.
Go---------- Gallion	Fair: low strength.	Fair: too clayey.
Gp:* Gallion----------	Fair: low strength.	Good.
Perry----------	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Ia---------- Iberia	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Je---------- Jeanerette	Poor: low strength.	Fair: small stones.
Ju---------- Judice	Poor: low strength, wetness, shrink-swell.	Poor: wetness.
La---------- Latanier	Fair: wetness.	Poor: too clayey.
Lb, Lc----------	Poor:	Poor:
Le---------- Loreauville	Fair: low strength, wetness.	Fair: small stones.
Lp, Lr---------- Loring	Poor: low strength.	Good.
Ma----------	Poor:	Poor:

TABLE 12.--CONSTRUCTION MATERIALS--Continued

Map symbol and soil name	Roadfill	Topsoil
MU:*		
Muskogee	Poor: low strength, shrink-swell.	Fair: thin layer.
[illegible]	[illegible]	[illegible]
Pa, Pb Patoutville	Poor: low strength.	Good.
Pc:*		
Patoutville	Poor: low strength.	Good.
Crowley	Poor: low strength, wetness.	Poor: thin layer, wetness.
Pr Perry	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Sh, So, Sp Sharkey	Poor: low strength, wetness, shrink-swell.	Poor: too clayey, wetness.
Ts:*		
Tensas	Poor: low strength.	Poor: too clayey.
Sharkey	Poor: low strength, wetness,	Poor: too clayey, wetness.

TABLE 13.--WATER MANAGEMENT

[Some terms that describe restrictive soil features are defined in the Glossary. See text for definitions of "slight," "moderate," and "severe." The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation]

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Terraces and diversions	Grassed waterways
Ac---------- Acadia	Slight---------	Severe: hard to pack, wetness.	Severe: no water.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Bd---------- Baldwin	Slight---------	Severe: wetness.	Severe: slow refill.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Bh:*						
Baldwin----------	Slight---------	Severe: wetness.	Severe: slow refill.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Sharkey----------	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, percs slowly.
BL:*						
Basile----------	Moderate: seepage.	Severe: wetness.	Severe: slow refill.	Percs slowly, flooding.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Wrightsville-----	Slight---------	Severe: wetness.	Severe: no water.	Percs slowly, flooding.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Cc---------- Calhoun	Slight---------	Severe: piping, wetness.	Severe: no water.	Percs slowly---	Erodes easily, wetness.	Wetness, erodes easily, percs slowly.
Cd---------- Commerce	Moderate: seepage.	Severe: thin layer, wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Erodes easily.
CE:*						
Commerce---------	Moderate: seepage.	Severe: thin layer, wetness.	Severe: slow refill.	Flooding-------	Erodes easily, wetness.	Erodes easily.
Convent----------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Flooding-------	Erodes easily, wetness.	Erodes easily.
Cf, Ch---------- Convent	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Erodes easily.
Ck:*						
Convent----------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Flooding-------	Erodes easily, wetness.	Erodes easily.
Commerce---------	Moderate: seepage.	Severe: thin layer, wetness.	Severe: slow refill.	Flooding-------	Erodes easily, wetness.	Erodes easily.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Terraces and diversions	Grassed waterways
Co, Cp---------- Coteau	Slight---------	Moderate: thin layer, piping, wetness.	Severe: no water.	Favorable------	Erodes easily, wetness.	Erodes easily.
Cw---------- Crowley	Slight---------	Severe: wetness.	Severe: no water.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
De, Df---------- Dundee	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Erodes easily, rooting depth.
Dr:*						
Dundee----------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Erodes easily, rooting depth.
Alligator--------	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, percs slowly.
Ds:*						
Dundee----------	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Erodes easily, rooting depth.
Sharkey----------	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, percs slowly.
EA*----------	Moderate:	Severe:	Severe:	Flooding-------	Erodes easily	Wetness

TABLE 13.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Terraces and diversions	Grassed waterways
Go---------- Gallion	Moderate: seepage.	Moderate: thin layer, piping.	Severe: no water.	Deep to water	Favorable------	Favorable.
Gp:* Gallion----------	Moderate: seepage.	Moderate: thin layer, piping.	Severe: no water.	Deep to water	Erodes easily	Erodes easily.
Perry----------	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, rooting depth, percs slowly.
Ia---------- Iberia	Slight---------	Moderate: compressible, low strength, shrink-swell.	Severe: slow refill.	Percs slowly---	Not needed-----	Wetness, percs slowly.
Je---------- Jeanerette	Slight---------	Severe: wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Wetness, erodes easily.
Ju---------- Judice	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, percs slowly.
La---------- Latanier	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Lb---------- Lebeau	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly---	Wetness, percs slowly.	Wetness, percs slowly.
Lc---------- Lebeau	Slight---------	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly, flooding.	Wetness, percs slowly.	Wetness, percs slowly.
Le---------- Loreauville	Moderate: seepage.	Severe: wetness.	Severe: slow refill.	Favorable------	Erodes easily, wetness.	Wetness, erodes easily.
Lp, Lr---------- Loring	Moderate: seepage.	Moderate: piping.	Severe: no water.	Slope----------	Erodes easily, wetness.	Erodes easily, rooting depth.
Ma---------- Mamou	Slight---------	Severe: wetness.	Severe: no water.	Percs slowly---	Erodes easily, wetness.	Wetness, erodes easily, percs slowly.
Mc---------- Memphis	Moderate: seepage.	Severe: piping.	Severe: no water.	Deep to water	Erodes easily	Erodes easily.
Md, Me---------- Memphis	Moderate: seepage, slope.	Severe: piping.	Severe: no water.	Deep to water	Erodes easily	Erodes easily.
Mf---------- Memphis	Severe: slope.	Severe: piping.	Severe: no water.	Deep to water	Slope, erodes easily.	Slope, erodes easily.
Mt---------- Mowata	Slight---------	Severe: wetness.	Severe: slow refill.	Percs slowly---	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.

See footnote at end of table.

TABLE 13.--WATER MANAGEMENT--Continued

Map symbol and soil name	Limitations for--			Features affecting--		
	Pond reservoir areas	Embankments, dikes, and levees	Aquifer-fed excavated ponds	Drainage	Terraces and diversions	Grassed waterways
MU:*						
Muskogee	Moderate: slope.	Moderate: hard to pack, wetness.	Severe: no water.	Percs slowly, slope.	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Loring	Severe: slope.	Moderate: piping.	Severe: no water.	Slope	Slope, erodes easily, wetness.	Slope, erodes easily, rooting depth.
Pa, Pb Patoutville	Slight	Moderate: piping, wetness.	Severe: slow refill.	Percs slowly	Erodes easily, wetness, percs slowly.	Erodes easily, percs slowly.
Pc:*						
Patoutville	Slight	Moderate: piping, wetness.	Severe: slow refill.	Percs slowly	Erodes easily, wetness, percs slowly.	Erodes easily, percs slowly.
Crowley	Slight	Severe: wetness.	Severe: no water.	Percs slowly	Erodes easily, wetness, percs slowly.	Wetness, erodes easily, percs slowly.
Pr Perry	Slight	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly, flooding.	Wetness, percs slowly.	Wetness, rooting depth, percs slowly.
Sh Sharkey	Slight	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly	Wetness, percs slowly.	Wetness, percs slowly.
So, Sp Sharkey	Slight	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly, flooding.	Wetness, percs slowly.	Wetness, percs slowly.
Ts:*						
Tensas	Moderate: seepage.	Severe: piping, wetness.	Severe: slow refill.	Percs slowly	Erodes easily, wetness.	Wetness, erodes easily, percs slowly.
Sharkey	Slight	Severe: hard to pack, wetness.	Severe: slow refill.	Percs slowly	Wetness, percs slowly.	Wetness, percs slowly.
Wv:*						
Wrightsville	Slight	Severe: wetness.	Severe: no water.	Percs slowly	Erodes easily, wetness,	Wetness, erodes easily,

TABLE 14.--ENGINEERING INDEX PROPERTIES

[The symbol < means less than; > means more than. Absence of an entry indicates that data were not estimated. Some soils may have Unified classifications and USDA textures in addition to those shown. In general, the dominant classifications and textures are shown]

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Ac----------	0-9	Silt loam--------	ML, CL-ML	A-4	0	100	100	95-100	85-100	<30	NP-7
Acadia	9-14	Silt loam, silty clay loam.	CL	A-6	0	100	100	95-100	85-100	30-40	11-18
	14-44	Clay, silty clay	CH, CL	A-7-6	0	100	100	95-100	90-100	42-70	20-43
	44-60	Clay, silty clay, silty clay loam.	CH, CL	A-7-6, A-6	0	100	100	95-100	85-100	35-65	15-38
Bd----------	0-6	Silty clay loam	CL, CH	A-7-6, A-6	0	100	100	100	95-100	35-55	15-28
Baldwin	6-28	Clay, silty clay	CH	A-7-6	0	95-100	95-100	95-100	90-100	51-75	25-45
	28-60	Clay, silty clay, silty clay loam.	CH, CL	A-7-6, A-6	0	95-100	95-100	95-100	90-100	35-65	15-35
Bh:*											
Baldwin---------	0-6	Silty clay loam	CL, CH	A-7-6, A-6	0	100	100	100	95-100	35-55	15-28
	6-24	Clay, silty clay	CH	A-7-6	0	95-100	95-100	95-100	90-100	51-75	25-45
	24-74	Clay, silty clay, silty clay loam.	CH, CL	A-7-6, A-6	0	95-100	95-100	95-100	90-100	35-65	15-35
Sharkey---------	0-6	Clay----------	CH, CL	A-7-6, A-7-5	0	100	100	100	95-100	46-85	22-50
	6-44	Clay----------	CH	A-7-6, A-7-5	0	100	100	100	95-100	56-85	30-50
	44-60	Clay, silty clay loam, silt loam.	CL, CH	A-6, A-7-6, A-7-5	0	100	100	100	95-100	32-85	11-50
BL:*											
Basile----------	0-20	Silt loam--------	ML, CL, CL-ML	A-4	0	100	100	90-100	75-95	<30	NP-10
	20-48	Silty clay loam	CL	A-6, A-7-6	0	100	100	95-100	80-95	30-42	12-20
	48-60	Silt loam, silty clay loam.	CL	A-6, A-4, A-7-6	0	100	100	95-100	80-95	28-42	8-20
Wrightsville----	0-14	Silt loam--------	ML, CL, CL-ML	A-4	0	100	95-100	90-100	75-100	<31	NP-10
	14-46	Silty clay, clay, silty clay loam.	CH, CL	A-7	0	100	100	95-100	90-100	41-65	22-40
	46-60	Silty clay loam, silty clay, silt loam.	CL, CH	A-7, A-6	0	100	95-100	95-100	90-100	35-55	16-30
Cc----------	0-18	Silt loam--------	CL-ML, ML, CL	A-4	0	100	100	100	95-100	<31	NP-10
Calhoun	18-46	Silty clay loam, silt loam.	CL	A-6, A-7-6	0	100	100	95-100	95-100	30-45	11-24
	46-60	Silt loam--------	CL, CL-ML	A-6, A-4	0	100	100	100	90-100	25-40	5-20
Cd----------	0-8	Silt loam--------	CL-ML, CL, ML	A-4	0	100	100	100	75-100	<30	NP-10
Commerce	8-35	Silty clay loam, silt loam, loam.	CL	A-6, A-7-6	0	100	100	100	85-100	32-45	11-23
	35-60	Stratified very fine sandy loam to silty clay.	CL-ML, CL, ML	A-4, A-6, A-7-6	0	100	100	100	75-100	23-45	3-23

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
CE:*											
Commerce	0-5	Silty clay loam	CL	A-6, A-7-6	0	100	100	100	90-100	32-50	11-25
	5-25	Silty clay loam, silt loam, loam.	CL	A-6, A-7-6	0	100	100	100	85-100	32-45	11-23
	25-60	Silt loam	CL-ML, CL, ML	A-4, A-6, A-7-6	0	100	100	100	75-100	23-45	3-23
Convent	0-4	Silt loam	ML, CL-ML	A-4	0	100	100	95-100	85-100	<27	NP-7
	4-60	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	75-100	<27	NP-7
Cf	0-6	Very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	85-100	<27	NP-7
Convent	6-60	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	75-100	<27	NP-7
Ch	0-7	Very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	85-100	<27	NP-7
Convent	7-60	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	75-100	<27	NP-7
Ck:*											
Convent	0-5	Silt loam	ML, CL-ML	A-4	0	100	100	95-100	85-100	<27	NP-7
	5-60	Silt loam, very fine sandy loam.	ML, CL-ML	A-4	0	100	100	95-100	75-100	<27	NP-7
Commerce	0-6	Silt loam	CL-ML, CL, ML	A-4	0	100	100	100	75-100	<30	NP-10
	6-30	Silty clay loam, silt loam, loam.	CL	A-6, A-7-6	0	100	100	100	85-100	32-45	11-23
	30-60	Stratified very fine sandy loam to silty clay.	CL-ML, CL, ML	A-4, A-6, A-7-6	0	100	100	100	75-100	23-45	3-23
Co	0-6	Silt loam	ML, CL-ML	A-4	0	100	100	100	95-100	<27	NP-7
Coteau	6-45	Silty clay loam, silt loam.	CL	A-6	0	100	100	100	95-100	33-45	12-22
	45-72	Silt loam	CL-ML, CL	A-4, A-6	0	100	100	100	95-100	25-42	5-18
Cp	0-5	Silt loam	ML, CL-ML	A-4	0	100	100	100	95-100	<27	NP-7
Coteau	5-34	Silty clay loam, silt loam.	CL	A-6	0	100	100	100	95-100	33-45	12-22
	34-60	Silt loam	CL-ML, CL	A-4, A-6	0	100	100	100	95-100	25-42	5-18
Cw	0-20	Silt loam	ML, CL-ML, CL	A-4	0	100	100	95-100	80-100	<30	NP-10
Crowley	20-31	Silty clay, silty clay loam.	CH, CL	A-7-6	0	100	100	95-100	85-100	41-60	20-35
	31-60	Silty clay loam, silty clay.	CL, CH	A-7-6, A-6	0	100	100	95-100	85-100	38-60	18-35

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
De---------- Dundee	0-6	Silt loam--------	CL, CL-ML, ML	A-4, A-6	0	100	100	90-100	75-98	20-35	3-11
	6-29	Silty clay loam.	CL	A-6, A-7	0	100	100	90-100	70-95	28-44	12-22

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
FC:*											
Fausse	0-8	Clay	CH, OH, MH	A-7-6, A-7-5	0	100	100	100	95-100	50-100	21-71
	8-44	Clay	CH	A-7-6, A-7-5	0	100	100	100	95-100	60-100	31-71
	44-60	Clay, silty clay, silty clay loam.	CH, MH, CL, ML	A-7-6, A-7-5	0	100	100	100	95-100	45-100	16-71
Sharkey	0-4	Clay	CH, CL	A-7-6, A-7-5	0	100	100	100	95-100	46-85	22-50
	4-42	Clay	CH	A-7-6, A-7-5	0	100	100	100	95-100	56-85	30-50
	42-60	Clay, silty clay loam, silt loam.	CL, CH	A-6, A-7-6, A-7-5	0	100	100	100	95-100	32-85	11-50
Fo Frost	0-19	Silt loam	CL-ML, CL, ML	A-4	0	100	100	100	80-100	25-31	3-10
	19-60	Silty clay loam, silt loam.	CL	A-6, A-7-6	0	100	100	100	90-100	35-50	15-25
Fr Frost	0-22	Silt loam	CL-ML, CL, ML	A-4	0	100	100	100	80-100	25-31	3-10
	22-60	Silty clay loam, silt loam.	CL	A-6, A-7-6	0	100	100	100	90-100	35-50	15-25
Fz Frozard	0-6	Silt loam	ML, CL-ML	A-4	0	100	100	100	95-100	<32	NP-7
	6-56	Silty clay loam, silt loam.	CL	A-6, A-7-6	0	95-100	95-100	90-100	85-100	32-50	15-27
	56-66	Silt loam, silty clay loam.	CL	A-6, A-7-6	0	95-100	95-100	90-100	85-100	30-45	12-23
Ga Gallion	0-8	Silt loam	ML, CL-ML, CL	A-4, A-6	0	100	100	100	90-100	<28	NP-11
	8-41	Silt loam, silty clay loam, clay loam.	CL	A-6	0	100	100	100	90-100	28-40	11-17
	41-60	Stratified silty clay loam to very fine sandy loam.	CL, CL-ML	A-6, A-4	0	100	100	100	90-100	23-34	4-12
Go Gallion	0-6	Silty clay loam	CL	A-6	0	100	100	100	90-100	33-40	15-20
	6-42	Silt loam, silty clay loam, loam.	CL	A-6	0	100	100	100	90-100	28-40	11-17
	42-60	Stratified silty clay loam to very fine sandy loam.	CL, CL-ML	A-6, A-4	0	100	100	100	90-100	23-34	4-12
Gp:*											
Gallion	0-6	Silt loam	ML, CL-ML, CL	A-4, A-6	0	100	100	100	90-100	<28	NP-11
	6-43	Silt loam, silty clay loam, clay loam.	CL	A-6	0	100	100	100	90-100	28-40	11-17
	43-60	Stratified silty clay loam to very fine sandy loam.	CL, CL-ML	A-6, A-4	0	100	100	100	90-100	23-34	4-12

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Gp:*											
Perry	0-6	Silty clay	CH, CL	A-7-6	0	100	100	100	95-100	45-75	22-45
	6-23	Clay	CH	A-7-6	0	100	100	100	95-100	60-80	33-50
	23-60	Clay	CH, CL	A-7-6	0	90-100	85-100	75-100	70-100	45-80	22-50
Ia	0-12	Clay	CH, CL, MH	A-7-6, A-7-5	0	100	100	100	95-100	45-88	22-52
Iberia	12-48	Clay, silty clay	CH, MH	A-7-6, A-7-5	0	95-100	90-100	90-100	85-100	58-88	32-52
	48-70	Silty clay, silt loam, clay.	CH, CL, MH	A-7-6, A-7-5	0	100	100	100	95-100	41-88	17-52
Je	0-6	Silt loam	CL-ML, CL	A-4	0	100	100	95-100	90-100	23-31	4-10

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Ma----------	0-16	Silt loam--------	ML, CL-ML	A-4	0	100	100	100	90-100	<27	NP-7

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Frag-ments > 3 inches	Percentage passing sieve number--				Liquid limit	Plas-ticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Pb---------- Patoutville	0-6	Silt loam--------	ML, CL-ML	A-4	0	100	100	100	95-100	<28	NP-7
	6-28	Silty clay loam	CL	A-6, A-7-6	0	100	100	100	95-100	30-50	10-25
	28-60	Silty clay loam, silt loam.	CL	A-6, A-7-6, A-4	0	100	100	100	95-100	25-50	8-23
Pc:* Patoutville-----	0-11	Silt loam--------	ML, CL-ML	A-4	0	100	100	100	95-100	<28	NP-7
	11-30	Silty clay loam	CL	A-6, A-7-6	0	100	100	100	95-100	30-50	10-25
	30-60	Silty clay loam, silt loam.	CL	A-6, A-7-6, A-4	0	100	100	100	95-100	25-50	8-23
Crowley---------	0-16	Silt loam--------	ML, CL-ML, CL	A-4	0	100	100	95-100	80-100	<30	NP-10
	16-26	Silty clay, silty clay loam.	CH, CL	A-7-6	0	100	100	95-100	85-100	41-60	20-35
	26-60	Silty clay loam, silty clay.	CL, CH	A-7-6, A-6	0	100	100	95-100	85-100	38-60	18-35
Pr---------- Perry	0-7	Clay----------	CH, CL	A-7-6	0	100	100	100	95-100	45-75	22-45
	7-27	Clay----------	CH	A-7-6	0	100	100	100	95-100	60-80	33-50
	27-60	Clay----------	CH, CL	A-7-6	0	90-100	85-100	75-100	70-100	45-80	22-50
Sh, So---------- Sharkey	0-6	Clay----------	CH, CL	A-7-6, A-7-5	0	100	100	100	95-100	46-85	22-50
	6-48	Clay----------	CH	A-7-6, A-7-5	0	100	100	100	95-100	56-85	30-50
	48-60	Clay, silty clay loam, silt loam.	CL, CH	A-6, A-7-6, A-7-5	0	100	100	100	95-100	32-85	11-50
Sp---------- Sharkey	0-7	Clay----------	CH, CL	A-7-6, A-7-5	0	100	100	100	95-100	46-85	22-50
	7-40	Clay----------	CH	A-7-6, A-7-5	0	100	100	100	95-100	56-85	30-50
	40-60	Clay, silty clay loam, silt loam.	CL, CH	A-6, A-7-6, A-7-5	0	100	100	100	95-100	32-85	11-50
Ts:* Tensas----------	0-4	Silty clay-------	CH, CL	A-7-6	0	100	100	100	95-100	46-70	22-40
	4-21	Clay, silty clay	CH	A-7-6	0	100	100	100	95-100	51-75	26-45
	21-60	Very fine sandy loam, silty clay loam, silt loam.	CL-ML, CL	A-4, A-6	0	100	100	100	80-100	25-40	5-17
Ts:* Sharkey---------	0-5	Clay----------	CH, CL	A-7-6, A-7-5	0	100	100	100	95-100	46-85	22-50
	5-52	Clay----------	CH	A-7-6, A-7-5	0	100	100	100	95-100	56-85	30-50
	52-60	Clay, silty clay loam, silt loam.	CL, CH	A-6, A-7-6, A-7-5	0	100	100	100	95-100	32-85	11-50

See footnote at end of table.

TABLE 14.--ENGINEERING INDEX PROPERTIES--Continued

Map symbol and soil name	Depth	USDA texture	Classification		Fragments > 3 inches	Percentage passing sieve number--				Liquid limit	Plasticity index
			Unified	AASHTO		4	10	40	200		
	In				Pct					Pct	
Wv:*											
Wrightsville----	0-19	Silt loam--------	ML, CL, CL-ML	A-4	0	100	95-100	90-100	75-100	<31	NP-10
	19-53	Silty clay, clay, silty clay loam.	CH, CL	A-7	0	100	100	95-100	90-100	41-65	22-40
	53-60	Silty clay loam, silty clay, silt loam.	CL, CH	A-7, A-6	0	100	95-100	95-100	90-100	35-55	16-30
Vidrine---------	0-22	Silt loam--------	ML, CL-ML	A-4	0	100	100	100	90-100	<27	NP-7
	22-45	Silty clay, silty clay loam.	CH, CL	A-7-6	0	100	100	100	90-100	41-60	19-32
	45-60	Silt loam, silty clay loam, silty clay.	CL, CH	A-4, A-6, A-7-6	0	90-100	85-100	85-100	70-100	28-55	8-28

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS

[The symbol < means less than; > means more than. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Organic matter" apply only to the surface layer. Absence of an entry indicates that data were not available or were not estimated]

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	G/cc	In/hr	In/in	pH				Pct
Ac----------	0-9	14-27	1.35-1.70	0.6-2.0	0.16-0.23	4.5-6.0	Low----------	0.49	5	.5-2
Acadia	9-14	20-39	1.35-1.70	0.6-2.0	0.16-0.22	4.5-5.5	Moderate-----	0.32		
	14-44	40-55	1.20-1.60	<0.06	0.15-0.18	4.5-6.0	High---------	0.32		
	44-60	30-55	1.20-1.70	<0.2	0.15-0.20	4.5-7.8	High---------	0.32		
Bd----------	0-6	27-39	1.35-1.65	0.06-0.2	0.18-0.22	5.1-6.5	Moderate-----	0.37	5	.5-4
Baldwin	6-28	40-55	1.20-1.60	<0.06	0.17-0.20	5.6-7.8	Very high----	0.32		
	28-60	35-55	1.20-1.65	<0.2	0.17-0.21	6.6-8.4	High---------	0.32		
Bh:*										
Baldwin---------	0-6	27-39	1.35-1.65	0.06-0.2	0.18-0.22	5.1-6.5	Moderate-----	0.37	5	.5-4
	6-24	40-55	1.20-1.60	<0.06	0.17-0.20	5.6-7.8	Very high----	0.32		
	24-74	35-55	1.20-1.65	<0.2	0.17-0.21	6.6-8.4	High---------	0.32		
Sharkey---------	0-6	40-60	1.20-1.50	<0.06	0.12-0.18	5.6-7.8	Very high----	0.32	5	.5-2
	6-44	60-90	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high----	0.28		
	44-60	25-90	1.20-1.75	0.06-0.2	0.12-0.22	7.8-8.4	High---------	0.28		
BL:*										
Basile----------	0-20	10-27	1.35-1.65	0.6-2.0	0.18-0.20	5.1-6.0	Low----------	0.43	5	.5-2
	20-48	28-35	1.35-1.70	0.06-0.2	0.20-0.22	5.6-8.4	Moderate-----	0.37		
	48-60	14-35	1.35-1.70	0.06-0.2	0.18-0.20	6.1-8.4	Low----------	0.43		
Wrightsville----	0-14	10-25	1.25-1.50	0.2-0.6	0.16-0.24	3.6-5.5	Low----------	0.49	5	.5-2
	14-46	35-55	1.20-1.45	<0.06	0.14-0.22	3.6-6.0	High---------	0.37		
	46-60	20-45	1.20-1.50	<0.06	0.14-0.22	3.6-8.4	High---------	0.43		
Cc----------	0-18	10-27	1.30-1.65	0.2-0.6	0.21-0.23	4.5-6.0	Low----------	0.49	5	.5-4
Calhoun	18-46	10-35	1.30-1.70	0.06-0.2	0.20-0.22	4.5-6.0	Moderate-----	0.43		
	46-60	10-27	1.40-1.70	0.2-0.6	0.21-0.23	4.5-6.0	Low----------	0.43		
Cd----------	0-8	14-27	1.35-1.65	0.6-2.0	0.21-0.23	6.6-7.8	Low----------	0.43	5	.5-4
[illegible]										

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	G/cc	In/hr	In/in	pH				Pct
Co	0-6	5-18	1.35-1.65	0.2-0.6	0.21-0.23	4.5-6.5	Low	0.49	5	.5-4
Coteau	6-45	18-32	1.35-1.65	0.2-0.6	0.20-0.23	4.5-6.5	Moderate	0.32		
	45-72	8-27	1.35-1.65	0.2-0.6	0.20-0.23	5.1-7.3	Low	0.37		
Cp	0-5	5-18	1.35-1.65	0.2-0.6	0.21-0.23	4.5-6.5	Low	0.49	5	.5-4
Coteau	5-34	18-32	1.35-1.65	0.2-0.6	0.20-0.23	4.5-6.5	Moderate	0.32		
	34-60	8-27	1.35-1.65	0.2-0.6	0.20-0.23	5.1-7.3	Low	0.37		
Cw	0-20	10-27	1.30-1.65	0.2-0.6	0.20-0.23	4.5-8.4	Low	0.49	5	.5-4
Crowley	20-31	35-50	1.20-1.80	<0.06	0.19-0.21	4.5-6.5	High	0.32		
	31-60	27-55	1.30-1.80	0.06-0.2	0.20-0.22	5.6-8.4	Moderate	0.32		
De	0-6	10-30	1.30-1.80	0.6-2.0	0.15-0.20	4.5-7.8	Low	0.43	5	.5-2
Dundee	6-29	18-34	1.30-1.80	0.2-0.6	0.15-0.20	4.5-6.0	Moderate	0.32		
	29-60	18-25	1.30-1.80	0.6-2.0	0.15-0.20	4.5-7.3	Low	0.32		
Df	0-6	10-30	1.30-1.80	0.6-2.0	0.15-0.20	4.5-6.0	Low	0.43	5	.5-2
Dundee	6-48	18-34	1.30-1.80	0.2-0.6	0.15-0.20	4.5-6.0	Moderate	0.32		
	48-60	18-25	1.30-1.80	0.6-2.0	0.15-0.20	4.5-7.3	Low	0.32		
Dr:*										
Dundee	0-6	10-30	1.30-1.80	0.6-2.0	0.15-0.20	4.5-6.0	Low	0.43	5	.5-2
	6-37	18-34	1.30-1.80	0.2-0.6	0.15-0.20	4.5-6.0	Moderate	0.32		
	37-68	18-25	1.30-1.80	0.6-2.0	0.15-0.20	4.5-7.3	Low	0.32		
Alligator	0-6	40-60	1.20-1.50	<0.06	0.18-0.20	4.5-5.5	High	0.32	5	1-3
	6-49	60-85	1.20-1.50	<0.06	0.14-0.18	4.5-5.5	Very high	0.24		
	49-70	35-85	1.20-1.50	<0.06	0.14-0.18	5.1-7.3	Very high	0.24		
Ds:*										
Dundee	0-6	10-30	1.30-1.80	0.6-2.0	0.15-0.20	4.5-6.0	Low	0.43	5	.5-2
	6-42	18-34	1.30-1.80	0.2-0.6	0.15-0.20	4.5-6.0	Moderate	0.32		
	42-60	18-25	1.30-1.80	0.6-2.0	0.15-0.20	4.5-7.3	Low	0.32		
Sharkey	0-4	40-60	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.32	5	.5-2
	4-43	60-90	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.28		
	43-60	25-90	1.20-1.75	0.06-0.2	0.12-0.22	6.6-8.4	High	0.28		
FA*	0-53	6-18	1.25-1.45	0.6-2.0	0.20-0.22	4.5-5.5	Low	0.49	5	.5-3

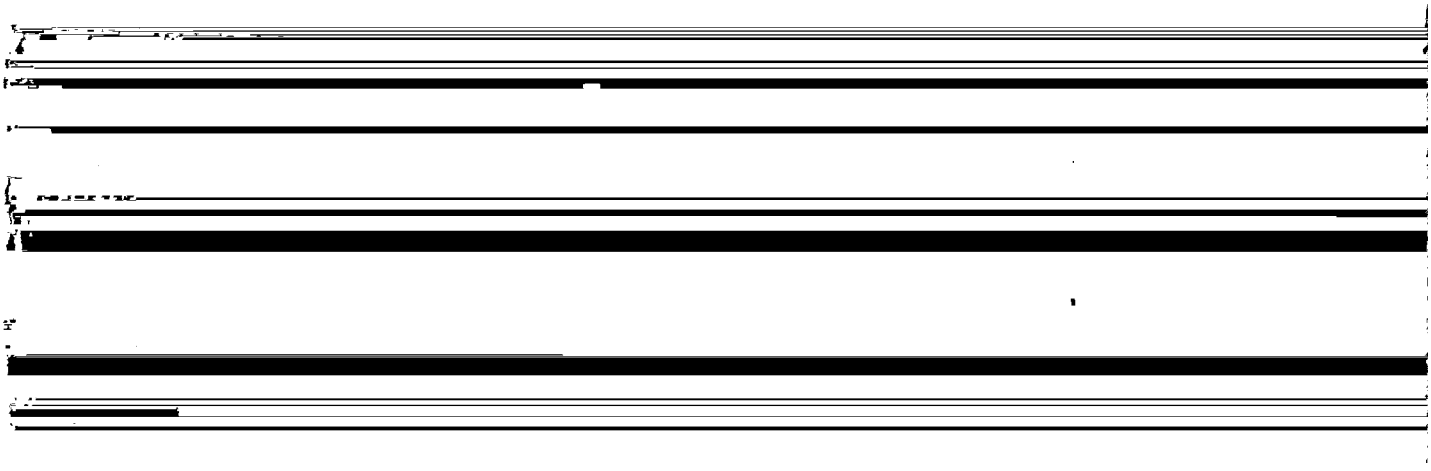


TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	G/cc	In/hr	In/in	pH				Pct
Ga	0-8	14-27	1.35-1.65	0.6-2.0	0.21-0.23	5.6-7.3	Low	0.43	5	.5-2
Gallion	8-41	14-35	1.35-1.75	0.6-2.0	0.20-0.22	5.6-7.8	Moderate	0.32		
	41-60	14-35	1.35-1.75	0.6-2.0	0.20-0.23	6.6-8.4	Low	0.37		
Go	0-6	27-35	1.35-1.65	0.6-2.0	0.20-0.22	5.6-7.3	Moderate	0.37	5	.5-2
Gallion	6-42	14-35	1.35-1.75	0.6-2.0	0.20-0.22	5.6-7.8	Moderate	0.32		
	42-60	14-35	1.35-1.75	0.6-2.0	0.20-0.23	6.6-8.4	Low	0.37		
Gp:*										
Gallion	0-6	14-27	1.35-1.65	0.6-2.0	0.21-0.23	5.6-7.3	Low	0.43	5	.5-2
	6-43	14-35	1.35-1.75	0.6-2.0	0.20-0.22	5.6-7.8	Moderate	0.32		
	43-60	14-35	1.35-1.75	0.6-2.0	0.20-0.23	6.6-8.4	Low	0.37		
Perry	0-6	40-80	1.20-1.60	<0.06	0.17-0.20	4.5-6.0	High	0.32	5	.5-4
	6-23	55-85	1.17-1.50	<0.06	0.17-0.20	5.1-7.3	Very high	0.28		
	23-60	55-85	1.17-1.50	<0.06	0.17-0.20	6.1-8.4	Very high	0.28		
Ia	0-12	40-60	1.20-1.35	0.06-0.2	0.15-0.19	6.1-7.8	Very high	0.32	5	2-5
Iberia	12-48	45-60	1.20-1.35	<0.06	0.14-0.18	6.6-8.4	Very high	0.32		
	48-70	30-60	1.20-1.65	<0.2	0.14-0.20	6.6-8.4	High	0.32		
Je	0-6	10-26	1.35-1.65	0.6-2.0	0.21-0.23	5.6-7.8	Low	0.49	5	1-4
Jeanerette	6-54	18-35	1.35-1.70	0.2-0.6	0.20-0.22	6.6-8.4	Moderate	0.32		
	54-60	14-35	1.35-1.70	0.2-0.6	0.20-0.23	6.6-8.4	Moderate	0.32		
Ju	0-7	27-50	1.20-1.80	0.06-0.2	0.17-0.22	6.1-7.8	High	0.32	5	2-4
Judice	7-60	27-50	1.20-1.80	<0.06	0.15-0.19	7.4-8.4	High	0.32		
La	0-6	40-55	1.20-1.70	<0.06	0.12-0.18	6.6-8.4	Very high	0.32	5	1-4
Latanier	6-22	40-55	1.20-1.70	<0.06	0.12-0.18	6.6-8.4	Very high	0.32		
	22-60	10-27	1.30-1.65	0.06-2.0	0.18-0.22	6.6-8.4	Low	0.37		
Lb	0-6	40-85	1.20-1.50	<0.06	0.14-0.18	6.1-8.4	Very high	0.32	5	.5-4
Lebeau	6-65	60-90	1.20-1.45	<0.06	0.12-0.18	6.1-8.4	Very high	0.28		
Lc	0-8	40-85	1.20-1.50	<0.06	0.14-0.18	6.1-8.4	Very high	0.32	5	.5-4
Lebeau	8-65	60-90	1.20-1.45	<0.06	0.12-0.18	6.1-8.4	Very high	0.28		
Le	0-7	5-27	1.35-1.65	0.6-2.0	0.21-0.23	6.1-7.8	Low	0.49	5	1-4
Loreauville	7-27	18-32	1.35-1.65	0.2-0.6	0.20-0.22	6.6-8.4	Moderate	0.32		
	27-80	8-27	1.35-1.65	0.6-2.0	0.21-0.23	6.6-8.4	Low	0.37		
Lp	0-7	8-18	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	3	.5-2
Loring	7-30	18-35	1.40-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.43		
	30-60	12-25	1.50-1.70	0.06-0.2	0.06-0.13	4.5-6.0	Low	0.43		
Lr	0-6	8-18	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	3	.5-2
Loring	6-25	18-35	1.40-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.43		
	25-42	12-25	1.50-1.70	0.06-0.2	0.06-0.13	4.5-6.0	Low	0.43		
	42-60	10-25	1.30-1.60	0.2-2.0	0.06-0.13	4.5-6.0	Low	0.43		
Ma	0-16	10-27	1.35-1.70	0.2-0.6	0.21-0.23	5.1-6.5	Low	0.49	5	.5-4
Mamou	16-34	27-35	1.35-1.60	0.06-0.2	0.20-0.22	5.1-6.5	Moderate	0.37		
	34-60	14-35	1.35-1.60	0.2-0.6	0.18-0.22	6.1-7.3	Moderate	0.37		
Mc	0-8	8-22	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	5	.5-2
Memphis	8-35	20-35	1.30-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.37		
	35-84	12-25	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.37		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	G/cc	In/hr	In/in	pH				Pct
Md	0-6	8-22	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	5	.5-2
Memphis	6-40	20-35	1.30-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.37		
	40-84	12-25	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.37		
Me	0-5	8-22	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	5	.5-2
Memphis	5-49	20-35	1.30-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.37		
	49-84	12-25	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.37		
Mf	0-4	8-22	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	5	.5-2
Memphis	4-34	20-35	1.30-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.37		
	34-80	12-25	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.37		
Mt	0-17	8-24	1.35-1.65	0.2-0.6	0.21-0.23	5.1-7.3	Low	0.49	5	.5-4
Mowata	17-47	35-50	1.20-1.70	<0.06	0.18-0.20	5.1-8.4	High	0.37		
	47-70	30-50	1.20-1.65	<0.06	0.18-0.20	6.6-8.4	High	0.43		
MU:*										
Muskogee	0-11	10-27	1.25-1.50	0.6-2.0	0.16-0.24	4.5-6.0	Low	0.43	5	1-4
	11-21	20-40	1.25-1.45	0.2-0.6	0.16-0.24	4.5-6.0	Moderate	0.37		
	21-80	30-55	1.20-1.45	0.06-0.2	0.14-0.18	4.5-7.8	High	0.32		
Loring	0-6	8-18	1.30-1.50	0.6-2.0	0.20-0.23	4.5-6.0	Low	0.49	3	.5-2
	6-24	18-35	1.40-1.50	0.6-2.0	0.20-0.22	4.5-6.0	Low	0.43		
	24-60	12-25	1.50-1.70	0.06-0.2	0.06-0.13	4.5-6.0	Low	0.43		
Pa	0-12	8-15	1.35-1.65	0.2-0.6	0.20-0.23	4.5-7.8	Low	0.49	5	.5-4
Patoutville	12-40	18-35	1.35-1.65	0.06-0.2	0.20-0.22	5.1-7.3	Moderate	0.37		
	40-70	18-35	1.35-1.65	0.06-0.6	0.20-0.22	6.1-8.4	Moderate	0.37		
Pb	0-6	8-15	1.35-1.65	0.2-0.6	0.20-0.23	4.5-7.8	Low	0.49	5	.5-4
Patoutville	6-28	18-35	1.35-1.65	0.06-0.2	0.20-0.22	5.1-7.3	Moderate	0.37		
	28-60	18-35	1.35-1.65	0.06-0.6	0.20-0.22	6.1-8.4	Moderate	0.37		
Pc:*										
Patoutville	0-11	8-15	1.35-1.65	0.2-0.6	0.20-0.23	4.5-7.8	Low	0.49	5	.5-4
	11-30	18-35	1.35-1.65	0.06-0.2	0.20-0.22	5.1-7.3	Moderate	0.37		
	30-60	18-35	1.35-1.65	0.06-0.6	0.20-0.22	6.1-8.4	Moderate	0.37		
Crowley	0-16	10-27	1.30-1.65	0.2-0.6	0.20-0.23	4.5-8.4	Low	0.49	5	.5-4
	16-26	35-50	1.20-1.80	<0.06	0.19-0.21	4.5-6.5	High	0.32		
	26-60	27-55	1.30-1.80	0.06-0.2	0.20-0.22	5.6-8.4	Moderate	0.32		
Pr	0-7	40-80	1.20-1.60	<0.06	0.17-0.20	4.5-6.0	High	0.32	5	.5-4
Perry	7-27	55-85	1.17-1.50	<0.06	0.17-0.20	5.1-7.3	Very high	0.28		
	27-60	55-85	1.17-1.50	<0.06	0.17-0.20	6.1-8.4	Very high	0.28		
Sh, So	0-6	40-60	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.32	5	.5-2
Sharkey	6-48	60-90	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.28		
	48-60	25-90	1.20-1.75	0.06-0.2	0.12-0.22	6.6-8.4	High	0.28		
Sp	0-7	40-60	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.32	5	.5-2
Sharkey	7-40	60-90	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high	0.28		
	40-60	25-90	1.20-1.75	0.06-0.2	0.12-0.22	6.6-8.4	High	0.28		

See footnote at end of table.

TABLE 15.--PHYSICAL AND CHEMICAL PROPERTIES OF THE SOILS--Continued

Map symbol and soil name	Depth	Clay	Moist bulk density	Permeability	Available water capacity	Soil reaction	Shrink-swell potential	Erosion factors		Organic matter
								K	T	
	In	Pct	G/cc	In/hr	In/in	pH				Pct
Ts:*										
Tensas----------	0-4	40-60	1.20-1.50	<0.06	0.12-0.18	4.5-7.3	High---------	0.32	5	.5-2
	4-21	40-60	1.20-1.50	<0.06	0.12-0.18	4.5-6.0	High---------	0.32		
	21-60	10-39	1.30-1.80	0.2-2.0	0.20-0.23	5.1-6.5	Low----------	0.37		
Sharkey---------	0-5	40-60	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high----	0.32	5	.5-2
	5-52	60-90	1.20-1.50	<0.06	0.12-0.18	5.6-8.4	Very high----	0.28		
	52-60	25-90	1.20-1.75	0.06-0.2	0.12-0.22	6.6-8.4	High---------	0.28		
Wv:*										
Wrightsville----	0-19	10-25	1.25-1.50	0.2-0.6	0.16-0.24	3.6-5.5	Low----------	0.49	5	.5-2
	19-53	35-55	1.20-1.45	<0.06	0.14-0.22	3.6-5.5	High---------	0.37		
	53-60	20-45	1.20-1.50	<0.06	0.14-0.22	3.6-8.4	High---------	0.43		
Vidrine---------	0-22	10-27	1.30-1.65	0.6-2.0	0.20-0.23	4.5-6.0	Low----------	0.49	5	.5-4
	22-45	27-50	1.18-1.80	0.06-0.2	0.18-0.20	4.5-6.0	High---------	0.32		
	45-60	20-50	1.25-1.80	0.06-0.2	0.18-0.22	5.1-8.4	Moderate-----	0.32		

* See description of the map unit for composition and behavior characteristics of the map unit.

TABLE 16.--SOIL AND WATER FEATURES

["Flooding" and "water table" and terms such as "rare," "brief," "apparent," and "perched" are explained in the text. The symbol > means more than. Absence of an entry indicates that the feature is not a concern or that data were not estimated]

Map symbol and soil name	Hydrologic group	Flooding			High water table			Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Uncoated steel	Concrete
					Ft				
Ac---------- Acadia	D	None--------	---	---	0.5-1.5	Perched	Dec-Apr	High-----	High.
Bd---------- Baldwin	D	None--------	---	---	0-2.0	Apparent	Dec-Mar	High-----	Moderate.
Bh:*									
Sharkey----------	D	Rare--------	---	---	0-2.0	Apparent	Dec-Apr	High-----	Low.
BL:*									
Basile----------	D	Frequent----	Brief to long.	Jan-Dec	0-1.5	Apparent	Dec-May	High-----	Moderate.
Wrightsville-----	D	Frequent----	Brief to long.	Jan-Dec	0.5-1.5	Perched	Dec-Apr	High-----	High.
Cc---------- Calhoun	D	None--------	---	---	0-2.0	Perched	Dec-Apr	High-----	Moderate.
Cd---------- Commerce	C	Rare--------	---	---	1.5-4.0	Apparent	Dec-Apr	High-----	Low.
CE:*									
Commerce---------	C	Frequent----	Brief to long.	Dec-Jul	1.5-4.0	Apparent	Dec-Apr	High-----	Low.
Convent----------	C	Frequent----	Brief to long.	Dec-Jul	1.5-4.0	Apparent	Dec-Apr	High-----	Low.
Cf, Ch---------- Convent	C	Rare--------	---	---	1.5-4.0	Apparent	Dec-Apr	High-----	Low.
Ck:*									

TABLE 16.--SOIL AND WATER FEATURES--Continued

		Flooding		High water table		Risk of corrosion

TABLE 16.--SOIL AND WATER FEATURES--Continued

Map symbol and soil name	Hydrologic group	Flooding			High water table			Risk of corrosion	
		Frequency	Duration	Months	Depth	Kind	Months	Uncoated steel	Concrete
					Ft				
Mc, Md, Me, Mf---- Memphis	B	None--------	---	---	>6.0	---	---	Moderate	Moderate.
Mt---------- Mowata	D	None--------	---	---	0-2.0	Apparent	Dec-Apr	High-----	Low.
MU:*									
Muskogee---------	C	None--------	---	---	1.0-2.0	Perched	Jan-Apr	High-----	Moderate.
Loring-----------	C	None--------	---	---	2.0-3.0	Perched	Dec-Mar	Moderate	Moderate.
Pa, Pb---------- Patoutville	C	None--------	---	---	2.0-5.0	Apparent	Dec-May	High-----	Moderate.
Pc:*									
Patoutville------	C	None--------	---	---	2.0-5.0	Apparent	Dec-May	High-----	Moderate.
Crowley----------	D	None--------	---	---	0.5-1.5	Perched	Dec-Apr	High-----	Moderate.
Pr---------- Perry	D	Frequent----	Brief to very long.	Dec-Jun	0-2.0	Apparent	Dec-Apr	High-----	Moderate.
Sh---------- Sharkey	D	Rare--------	---	---	0-2.0	Apparent	Dec-Apr	High-----	Low.
So---------- Sharkey	D	Occasional	Brief to very long.	Dec-Jun	0-2.0	Apparent	Dec-Apr	High-----	Low.
Sp---------- Sharkey	D	Frequent----	Brief to very long.	Dec-Jun	0-2.0	Apparent	Dec-Apr	High-----	Low.
Ts:*									
Tensas-----------	D	Rare--------	---	---	1.0-3.0	Apparent	Dec-Apr	High-----	Moderate.
Sharkey----------	D	Rare--------	---	---	0-2.0	Apparent	Dec-Apr	High-----	Low.
Wv:*									
Wrightsville-----	D	None--------	---	---	0.5-1.5	Perched	Dec-Apr	High-----	High.
Vidrine----------	D	None--------	---	---	1.0-2.0	Perched	Dec-Apr	High-----	Moderate.

* See description of the map unit for composition and behavior characteristics of the map unit.

** In the "High water table--Depth" column, a plus sign preceeding the range in depth indicates that the water rises above the surface of the soil. The first numeral indicates how high the water rises above the surface. The second numeral indicates the depth below the surface.

TABLE 17.--PHYSICAL TEST DATA FOR SELECTED SOILS

[The symbol TR means trace. Dashes indicate analyses not made]

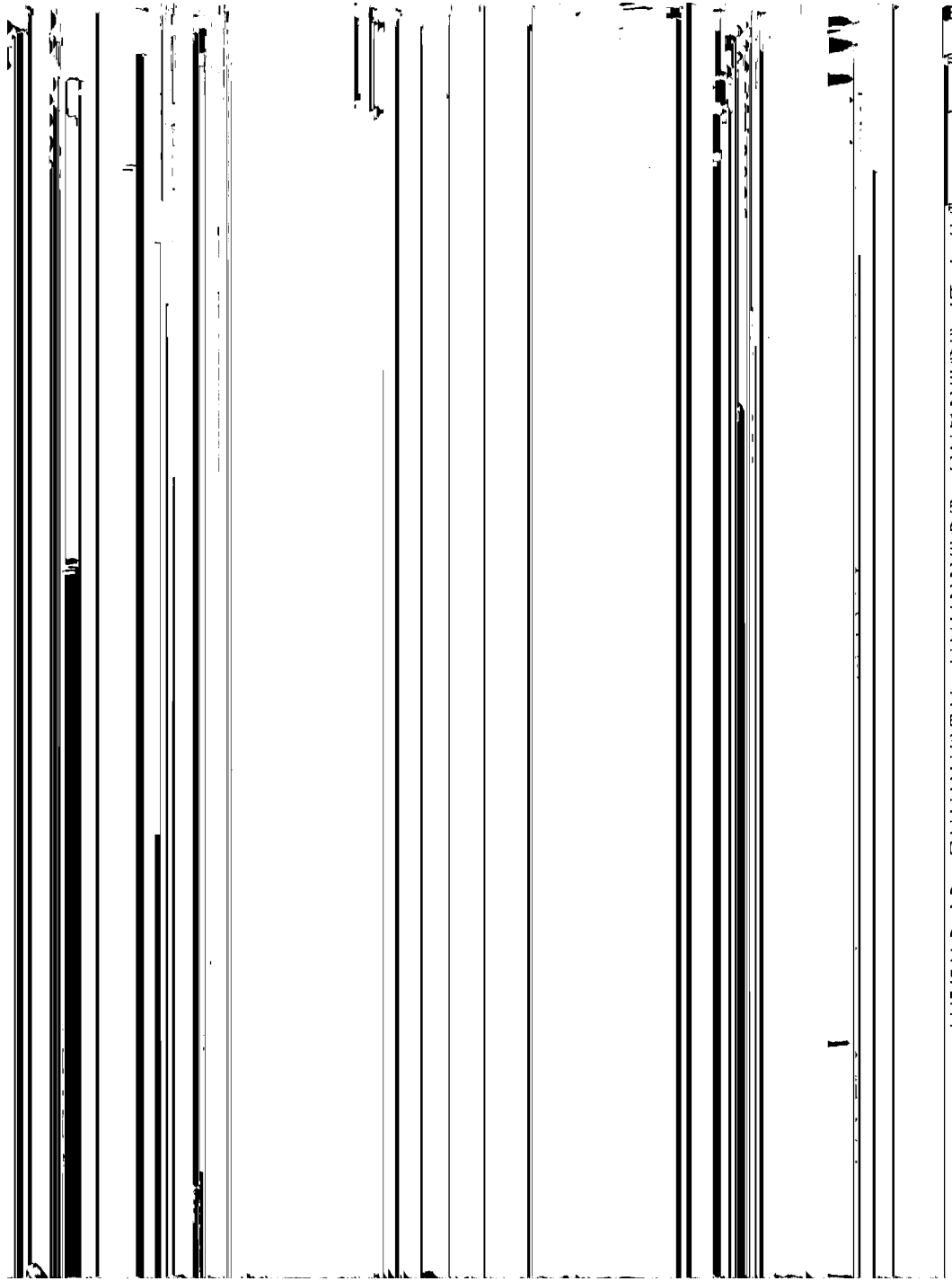
Soil and sample number	Horizon	Depth	Particle-size distribution (mm)									Water content at tension		Bulk density	
			Sand												
			Very coarse (2.0-1.0)	Coarse (1.0-0.5)	Medium (0.5-0.25)	Fine (0.25-0.10)	Very fine (0.10-0.05)	Total (2.0-0.5)	Silt (0.25-0.002)	Clay (0.002)	Fine clay (0.0002)	1/3 Bar	15 Bar	1/3 Bar	Oven-dry
		In	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	G/cc	G/cc
Coteau silt loam: (S79LA-97-3)*	Ap	0- 7	0.2	1.0	0.9	0.4	2.1	4.6	83.5	11.9	7.4	24.0	6.6	1.34	1.37
	Bt	7-15	TR	0.2	0.3	0.3	1.0	1.8	69.9	28.3	14.2	26.4	9.0	1.46	1.61
	B/E	15-25	TR	0.3	0.5	0.4	1.1	2.3	71.6	26.1	12.9	25.7	12.8	1.48	1.58
	B't1	25-36	TR	0.2	0.5	0.5	1.4	2.6	73.8	23.6	9.5	26.0	11.7	1.48	1.57
	B't2	36-47	TR	0.2	0.6	0.7	1.6	3.1	74.6	22.3	10.3	26.5	11.7	1.44	1.55
	BC	47-59	TR	---	0.2	0.5	1.5	2.2	77.6	20.2	9.1	27.0	11.2	1.43	1.51
	***	59-80	TR	0.1	0.3	0.4	1.4	2.2	81.4	16.4	6.2	27.6	10.0	1.42	1.49
Coteau silt loam: (S79LA-97-7)*	Ap	0- 6	0.2	0.6	0.6	0.3	1.4	3.1	82.5	14.4	8.2	21.3	6.2	1.43	1.44
	Bt1	6-12	TR	0.2	0.3	0.2	0.6	1.3	70.9	27.8	13.7	24.8	12.0	1.49	1.61
	Bt2	12-20	TR	0.1	0.2	0.2	0.7	1.2	70.6	28.2	13.3	26.4	12.6	1.47	1.56
	B/E	20-28	TR	0.2	0.4	0.4	1.2	2.2	72.2	25.6	10.3	26.6	12.3	1.46	1.57
	***	28-35	0.6	1.0	0.9	0.4	1.1	4.0	75.4	20.6	9.5	27.3	10.8	1.44	1.53
	B't1	35-45	0.1	0.5	0.7	0.5	1.0	2.8	77.9	19.3	9.1	26.9	10.5	1.41	1.49
	B't2	45-62	TR	---	TR	TR	0.4	0.4	81.1	18.5	5.3	29.4	10.0	1.33	1.43
	BC	62-70	TR	TR	TR	0.1	0.4	0.5	80.6	18.9	7.8	30.4	10.7	1.32	1.40
Frozard silt loam: (S79LA-97-5)*	Ap	0- 6	0.3	0.2	0.6	0.4	1.4	2.9	75.9	21.2	14.6	19.6	9.6	1.41	1.49
	Bt1	6-11	0.3	0.1	0.2	0.1	0.7	1.4	64.2	34.4	21.8	23.5	15.4	1.52	1.78
	Bt2	11-14	0.4	0.3	0.2	0.2	1.0	2.1	67.1	30.8	18.7	23.0	14.9	1.50	1.73
	Bt3	14-19	1.0	0.9	0.3	0.1	0.5	2.8	67.8	29.4	16.6	24.6	14.9	1.49	1.66
	Bt4	19-29	0.6	0.8	0.5	0.3	1.1	3.3	68.5	28.2	15.3	25.2	14.7	1.49	1.67
	Bt5	29-41	0.9	1.0	0.6	0.2	0.9	3.6	69.1	27.3	15.7	24.8	15.1	1.49	1.70
	Bt6	41-56	0.8	1.2	0.5	0.2	0.9	3.6	69.9	26.5	14.5	26.0	14.1	1.50	1.66
	BC	56-66	0.1	0.9	0.6	0.4	1.2	3.2	75.8	21.0	10.3	26.3	12.1	1.50	1.67
Lebeau clay: (S80LA-97-3)**	Ap	0- 6	0.0	0.5	0.6	1.1	1.6	3.8	33.2	63.0	---	46.1	21.9	---	---
	Bg	6-14	0.0	0.1	0.3	0.4	1.1	1.9	29.2	68.9	---	47.0	22.7	---	---
	Bk1	14-24	0.1	0.0	0.1	0.3	0.5	1.0	25.6	73.4	---	47.6	24.8	---	---
	Bk2	24-32	1.4	0.9	0.6	0.5	0.4	3.8	29.3	66.9	---	41.3	22.2	---	---
	Bky	32-44	0.6	0.4	0.2	0.4	3.0	4.6	22.4	73.0	---	45.1	24.0	---	---
	Ck	44-58	0.1	0.1	0.1	0.3	2.2	7.8	14.9	77.3	---	46.7	25.2	---	---
	2Cg	58-65	0.0	0.1	0.0	0.2	2.4	2.6	37.6	59.8	---	40.2	20.8	---	---

See footnote at end of table.

TABLE 17.--PHYSICAL TEST DATA FOR SELECTED SOILS--Continued

Soil and sample number	Horizon	Depth	Particle-size distribution (mm)									Water content at tension		Bulk density	
			Sand					Total (2.0-0.5)	Silt (0.25-0.002)	Clay (0.002)	Fine clay (0.0002)	1/3 Bar	15 Bar	1/3 Bar	Oven-dry
			Very coarse (2.0-1.0)	Coarse (1.0-0.5)	Medium (0.5-0.25)	Fine (0.25-0.10)	Very fine (0.10-0.05)								
		In	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	Pct	G/cc	G/cc
Patoutville silt loam: (S79LA-97-6)*	Ap	0- 6	0.6	0.8	0.5	0.2	1.1	3.2	86.1	10.7	6.6	23.0	6.4	1.38	1.42
	E	6-12	1.0	1.6	0.9	0.3	0.6	4.4	76.7	18.9	10.7	24.4	9.4	1.51	1.63
	Bt1	12-21	0.4	0.7	0.5	0.3	0.6	2.5	69.3	28.2	16.6	26.0	14.7	1.46	1.65
	Bt2	21-29	0.5	0.9	0.6	0.3	0.8	3.1	70.8	26.1	15.7	24.7	14.0	1.51	1.66
	Bt3	29-40	1.0	1.5	0.8	0.3	0.7	4.3	73.1	22.6	12.8	24.7	12.2	1.52	1.66
	BC1	40-51	1.2	1.8	0.9	0.4	0.6	4.9	75.0	20.1	11.5	24.2	11.1	1.54	1.63
	***	51-62	0.9	1.0	0.8	0.5	1.0	4.2	76.5	19.3	10.3	26.2	11.1	1.50	1.62
	BC2	62-70	TR	0.3	0.7	0.8	1.7	3.5	75.9	20.6	10.7	27.1	11.8	1.47	1.57

* Analysis by the National Soil Survey Laboratory, Soil Conservation Service, USDA.
** Analysis by the Soil Characterization Laboratory, Louisiana Agricultural Experiment Station.
*** The horizon was split for sampling purposes.



ECTED SOILS

e analyses not made]

anic bon	pH 1:1 H_2O	pH 1:1 KCl	pH 1:2 $CaCl_2$	Ex-tract-able Iron	Ex-tract-able Alumi-num	Ex-tract-able Hydro-gen	Ex-tract-able Phos-phorus
t				Pct	---Meq/100g----		ppm
58	4.9	4.0	4.5	0.9	0.1	---	---
41	5.6	4.3	4.9	1.5	0.2	---	---
32	5.5	4.1	4.7	1.5	0.2	---	---
22	5.7	4.2	4.8	1.4	0.2	---	---
17	5.7	4.2	4.9	1.3	0.2	---	---
13	5.9	4.2	4.9	1.4	0.1	---	---
09	5.9	4.2	5.0	1.3	0.1	---	---
57	4.6	3.8	4.2	0.7	0.1	---	---
46	4.8	3.7	4.2	1.2	0.2	---	---
35	5.1	3.7	4.3	1.4	0.2	---	---
29	5.3	3.9	4.5	1.5	0.2	---	---
20	5.9	4.2	4.9	1.7	0.2	---	---
17	5.7	4.3	4.9	1.7	0.2	---	---
11	5.8	4.3	5.2	1.4	0.1	---	---
10	5.8	4.3	5.2	1.5	0.1	---	---
14	5.5	4.3	4.9	1.0	0.1	---	---
67	6.7	5.0	6.0	1.0	0.1	---	---
30	7.9	6.0	7.1	1.0	0.1	---	---
18	8.5	6.4	7.7	1.1	0.1	---	---
21	8.5	6.5	7.7	1.2	0.1	---	---
15	8.3	6.1	7.3	1.3	0.1	---	---
11	8.0	5.6	6.7	1.3	0.1	---	---
08	7.6	5.2	6.4	1.4	0.1	---	---
40	6.2	5.3	5.9	0.7	0.0	0.0	26.9
70	6.2	5.1	5.8	0.9	0.0	0.0	7.8
40	7.4	6.2	7.0	0.4	0.0	0.0	7.8
20	7.8	6.8	7.4	0.1	0.0	0.0	5.9
50	8.0	6.7	7.3	0.6	0.0	0.0	16.9
50	7.6	6.8	7.4	0.5	0.0	0.0	57.5
10	7.8	6.5	7.3	0.4	0.0	0.0	13.9

TABLE 18.--CHEMICAL TEST DATA FOR SELECTED SOILS--Continued

Soil and sample number	Horizon	Depth	Extractable bases				Extractable acidity	Cation exchange capacity (NH_4OAc)	Base saturation	Organic carbon	pH			Extractable Iron	Extractable Aluminum	Extractable Hydrogen	Extractable Phosphorus
			Ca	Mg	K	Na					1:1 H_2O	1:1 KCl	1:2 $CaCl_2$				
		In	Meq/100g						Pct	Pct				Pct	Meq/100g		ppm
Patoutville silt loam: (S79LA-97-6)*	Ap	0- 6	6.2	1.6	0.1	0.1	2.6	8.0	100.0	0.93	6.5	5.6	6.0	0.7	0.1	---	---
	E	6-12	5.7	2.5	0.2	0.6	2.7	9.0	100.0	0.30	7.2	5.7	6.4	1.1	0.2	---	---
	Bt1	12-21	6.9	5.6	0.4	0.6	5.8	16.7	81.0	0.37	6.6	5.0	5.8	1.6	0.3	---	---
	Bt2	21-29	6.4	5.8	0.4	0.9	4.7	14.5	93.0	0.25	6.9	5.1	5.9	1.7	0.3	---	---
	Bt3	29-40	5.8	4.9	0.3	1.0	4.6	13.3	90.0	0.16	6.9	5.0	5.8	1.9	0.2	---	---
	BC1	40-51	5.5	4.4	0.3	1.0	4.7	12.8	87.0	0.11	6.7	4.8	5.7	1.8	0.2	---	---
	***	51-62	5.9	4.3	0.3	1.0	5.4	13.3	86.0	0.08	6.8	4.8	5.9	1.7	0.2	---	---
	BC2	62-70	6.8	4.6	0.4	1.0	5.3	13.5	95.0	0.08	6.6	4.7	5.7	1.6	0.1	---	---

* Analysis by the National Soil Survey Laboratory, Soil Conservation Service, USDA.
** Analysis by the Soil Characterization Laboratory, Louisiana Agricultural Experiment Station.
*** The horizon was split for sampling purposes.

TABLE 19.--MINERAL COMPOSITION OF THE CLAY FRACTION OF SELECTED SOILS

[Based on X-ray diffraction of soils analyzed by the National Soil Survey Laboratory, Soil Conservation Service, USDA. The symbol < means less than]

Soil and sample number	Depth	Horizon	Relative amounts of minerals* (< 2.0 microns)
Coteau silt loam: (S79LA-97-3)	7-15	Bt	MT2, MV2, MI2, KK2
	59-80	BC	MV3, MI3, KK2
Coteau silt loam: (S79LA-97-7)	12-20	B't2	MV2, MI2, KK2
	62-72	BC	MT2, MI2, KK2, VR1
Frozard silt loam: (S79LA-97-5)	6-11	Bt1	MT3, MI2, KK2, VR1
	14-19	Bt3	MT3, MI2, KK2, QZ1
	56-66	BC	MT3, VM2, MI2, KK2
Patoutville silt loam: (S79LA-97-6)	21-29	Bt2	MT2, MI2, KK2, VR1
	62-70	BC2	MT3, MI2, KK2

* In this column the alphabetical letter represents the kind of mineral, and the number represents the relative amount of the mineral. Minerals are listed in order of decreasing abundance.

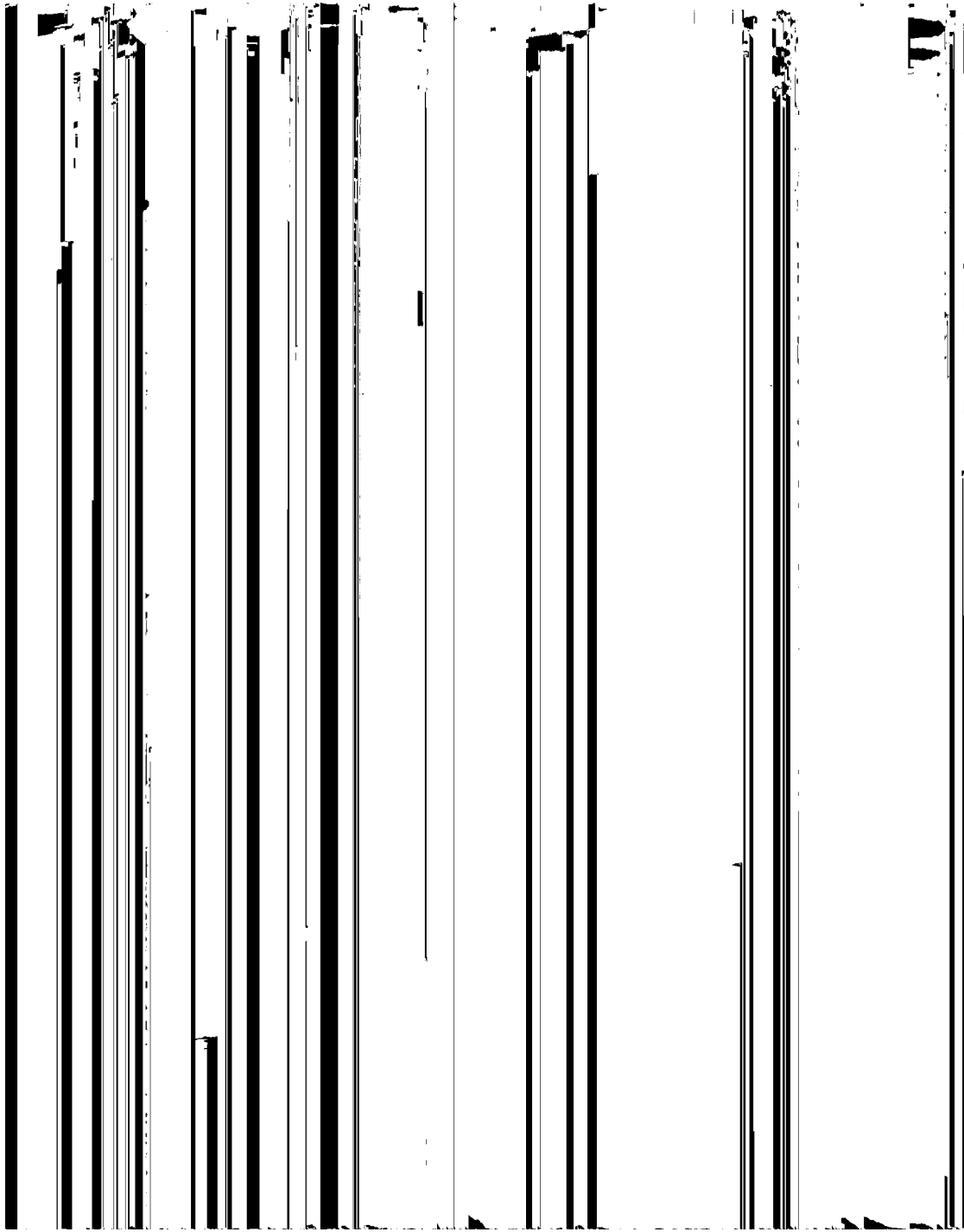
Kind of mineral

KK--Kaolinite
MI--Mica
MT--Montmorillonite
MV--Montmorillonite-Vermiculite
QZ--Quartz

Relative amount of mineral

1--Trace
2--Small (less than 10 percent)
3--Moderate (10 to 40 percent)

symbol	e a- n)	Pct	Saturation Al Pct	Saturation Na Pct
		.0	3.9	<1.0
		0.3	46.1	1.7
		0.7	43.6	2.1
		0.5	44.5	2.7
		7.8	22.4	4.0
		0.9	12.0	5.2
		3.6	0.0	<1.0
		0.4	4.4	<1.0
		0.5	9.2	<1.0
		1.7	6.1	<1.0
		1.0	4.1	<1.0
		1.2	1.3	<1.0
		.9	0.0	<1.0
		.3	0.0	<1.0
		0.5	0.0	<1.0
		0.8	0.0	<1.0
		.4	0.0	1.2
		.1	0.0	1.9
		0.9	2.5	1.0
		7.4	17.5	3.3
		0.6	5.3	14.5
		0.9	0.0	27.1
		0.4	0.0	24.3
		7.4	0.0	21.3
		7.1	0.0	19.5
		0.8	0.0	<1.0
		7.3	0.0	2.5
		0.5	2.7	5.3
		0.5	34.5	5.4
		.3	34.5	5.6
		0.6	13.2	6.6
		7.1	<1.0	0.0
		0.8	<1.0	0.0
		0.5	<1.0	0.0
		0.0	<1.0	0.0



S--Continued

1	H	Extractable acidity	Cation exchange capacity (sum)	Base saturation (sum)	Saturation	
					Al	Na
				Pct	Pct	Pct
0	0.2	0.5	15.2	96.7	0.0	1.0
0	0.2	1.0	15.3	93.4	0.0	1.3
0	0.2	0.5	8.1	93.8	0.0	2.4
0	0.2	0.5	17.7	97.1	0.0	1.1
6	0.4	4.1	7.8	47.4	12.8	1.3
0	0.2	0.5	8.6	94.2	0.0	2.3
0	0.2	2.0	9.0	77.8	0.0	4.4
3	0.7	11.7	23.3	49.8	21.2	3.9
7	0.3	5.6	18.7	70.1	5.0	4.8
0	0.2	1.0	14.7	93.2	0.0	4.8
0	0.2	1.0	18.9	94.7	0.0	<1.0
7	0.3	8.6	21.1	59.2	5.2	<1.0
3	0.5	8.1	22.1	63.3	8.2	<1.0
0	0.3	7.6	19.8	61.6	7.4	1.0
0	0.3	4.1	15.5	73.5	0.0	1.9
0	0.2	2.6	13.9	81.3	0.0	4.3
-	---	---	---	---	---	---
8	0.7	8.1	14.0	42.1	29.8	<1.0
3	0.4	6.5	13.5	51.9	14.9	2.2
2	0.5	6.5	13.8	52.9	22.0	5.1
4	0.6	2.6	7.2	63.9	21.2	6.9
2	0.8	6.5	14.7	55.8	26.2	8.8
0	0.2	8.1	42.4	80.9	0.0	1.9
0	0.2	6.1	40.9	85.1	0.0	2.2
0	0.2	5.6	37.3	85.0	0.0	2.1
0	0.2	4.1	36.1	88.6	0.0	2.2
0	0.2	3.6	33.9	89.4	0.0	2.1
0	0.3	7.2	13.5	46.6	0.0	<1.0
6	0.5	10.9	13.2	17.4	48.1	<1.0
7	0.3	6.8	9.6	29.1	38.4	2.0
5	0.6	8.8	17.4	49.4	21.3	1.7
8	0.6	10.9	23.3	53.2	12.1	2.1
9	0.4	8.3	19.8	58.0	7.0	2.5
5	0.1	6.2	19.6	68.3	3.5	3.0

Base saturation (sum)	Saturation	
	Al	Na
Pct	Pct	Pct
88.1	0.0	<1.0
96.5	0.0	<1.0
81.2	0.0	<1.0
84.4	0.0	<1.0
93.5	0.0	1.3
87.0	0.0	<1.0
78.1	0.0	<1.0
82.5	0.0	<1.0
83.7	0.0	<1.0
83.6	0.0	<1.0
86.4	0.0	<1.0
82.6	0.0	<1.0
93.9	0.0	<1.0
93.5	0.0	1.3
89.7	0.0	1.6
100.0	0.0	1.1
98.0	0.0	1.6
95.8	0.0	1.7
96.2	0.0	1.3
34.4	0.0	1.0
94.5	0.0	1.9
100.0	0.0	1.5
100.0	0.0	2.4
95.2	0.0	6.3
83.4	0.0	<1.0
88.2	0.0	<1.0
97.9	0.0	1.2
97.1	0.0	2.2
92.1	0.0	3.4
97.5	0.0	2.9
21.0	20.8	<1.0
19.6	40.0	<1.0
27.0	48.0	<1.0
36.6	38.1	<1.0
50.7	20.4	<1.0
65.6	5.4	1.6

TABLE 20.--FERTILITY TEST DATA ON SELECTED SOILS--Continued

Soil and sample number	Depth	Horizon	pH 1:1 H_2O	Organic matter content	Extractable P	Extractable cations						Extractable acidity	Cation exchange capacity (sum)	Base saturation (sum)	Saturation	
						Ca	Mg	K	Na	Al	H				Al	Na
	In			Pct	ppm	Meq/100g								Pct	Pct	Pct
Mamou silt loam: (S81LA-97-2)	0- 7	Ap	5.1	0.81	18	4.2	0.9	0.2	0.1	0.3	0.0	6.1	11.5	47.0	5.3	<1.0
	7-16	E	6.5	0.33	5	3.6	1.2	0.1	0.2	0.0	0.2	3.6	8.7	58.6	0.0	2.3
	16-25	Bt1	5.3	0.49	5	3.6	2.5	0.2	0.7	3.8	0.4	11.2	18.2	38.5	33.6	3.8
	25-34	Bt2	5.6	0.20	5	3.2	2.9	0.1	1.0	1.6	0.4	3.6	10.8	66.7	17.4	9.3
	34-60	C	6.1	0.17	5	3.0	2.3	0.1	0.9	0.2	0.2	1.5	7.8	80.8	3.0	11.5
Memphis silt loam: (S81LA-97-23)	0- 6	Ap	4.6	0.70	97	2.0	0.6	0.5	<0.1	0.7	0.6	6.0	9.1	34.1	15.9	<1.0
	6-24	Bt1	5.0	0.36	34	3.8	2.1	0.3	0.1	3.0	0.4	7.6	13.9	45.3	30.9	<1.0
	24-40	Bt2	5.7	0.17	46	5.1	2.8	0.2	0.2	1.8	0.4	6.0	14.3	58.0	17.1	1.4
	40-54	BC	5.8	0.12	53	6.1	3.0	0.2	0.3	0.9	0.3	3.8	13.4	71.6	8.3	2.2
	54-84	C	6.0	0.04	165	6.8	2.8	0.2	0.3	0.0	0.2	1.6	11.7	86.3	0.0	2.6
Mowata silt loam: (S81LA-97-1)	0- 5	Ap	5.1	0.96	27	4.3	1.6	0.1	0.2	0.8	0.1	6.6	12.8	48.4	11.3	1.6
	5-11	Eg1	5.6	0.46	5	5.9	2.3	0.1	0.5	0.6	0.0	5.6	14.4	61.1	6.4	3.5
	11-17	Eg2	6.4	0.44	5	5.7	1.9	0.1	0.3	0.0	0.2	3.6	11.6	69.0	0.0	2.6
	17-25	Btg1	5.3	0.41	5	9.4	3.9	0.2	0.7	1.5	0.0	5.6	19.8	71.7	9.6	3.5
	25-34	Btg2	5.6	0.25	5	11.0	4.6	0.3	0.8	0.6	0.0	5.1	21.8	76.6	3.5	3.7
	34-47	BC	6.2	0.23	5	12.2	5.0	0.2	0.8	0.0	0.2	4.6	22.8	79.8	0.0	3.5
	47-70	Cg	6.6	0.15	5	10.5	4.4	0.2	0.7	0.0	0.2	4.6	20.4	77.5	0.0	3.4
Muskogee silt loam: (S81LA-97-24)	0- 4	Ap	5.4	1.25	7	3.2	1.6	0.2	0.1	1.3	0.5	6.0	11.1	45.9	18.8	<1.0
	4-11	BA	5.5	0.44	5	3.1	1.8	0.2	0.2	4.1	0.6	8.1	13.4	39.6	41.0	1.5
	11-21	Bt1	5.7	0.15	5	4.9	3.0	0.3	0.5	7.2	0.4	11.9	20.6	42.2	47.1	2.4
	21-31	Bt2	5.6	0.07	5	9.3	5.7	0.5	0.9	7.2	0.3	14.6	31.0	52.9	30.1	2.9
	31-56	Bt3	5.9	0.09	5	18.7	8.3	0.6	1.2	1.3	0.5	8.6	37.4	77.0	4.2	3.2
	56-80	BC	5.7	0.04	19	25.2	10.3	0.9	2.1	0.0	0.2	4.3	42.8	90.0	0.0	4.9
Perry clay: (S81LA-97-20)	0- 7	A	5.3	1.20	43	8.3	6.6	0.5	0.2	1.5	0.6	14.5	30.1	51.8	8.5	<1.0
	7-13	Bg1	5.1	0.65	33	9.8	8.8	0.6	0.5	2.4	0.6	15.6	35.3	55.8	10.6	1.4
	13-27	Bg2	5.8	0.44	13	18.2	11.2	0.9	1.6	0.0	0.3	11.4	43.3	73.7	0.0	3.7
	27-38	2BC	6.5	0.28	36	18.8	11.3	0.9	1.9	0.0	0.2	9.2	42.1	78.1	0.0	4.5
	38-60	2C	6.9	0.28	62	19.2	11.3	0.9	3.0	0.0	0.2	7.6	42.2	81.9	0.0	7.1
Sharkey clay: (S81LA-97-14)	0- 6	Ap	6.6	1.38	68	27.4	10.6	1.1	0.4	0.0	0.2	9.7	49.2	80.3	0.0	<1.0
	6-18	Bg1	6.6	0.54	21	25.4	10.9	0.7	1.1	0.0	0.2	8.6	46.7	81.6	0.0	2.4
	18-28	Bg2	6.8	0.28	7	25.4	11.0	0.8	1.3	0.0	0.2	7.1	45.6	84.4	0.0	2.9
	28-48	BCg	7.3	0.28	31	25.8	11.0	0.9	1.2	0.0	0.2	8.2	47.1	82.6	0.0	2.5
	48-60	Cg	8.0	0.20	68	27.0	11.1	0.8	1.3	0.0	0.2	6.1	46.3	86.8	0.0	2.8

ase ura- on um)	Saturation		
	Al	Na	
Pct	Pct	Pct	
53.0	1.9	<1.0	
62.0	11.8	<1.0	
64.8	14.4	<1.0	
73.2	4.9	<1.0	
76.4	0.0	1.1	
20.8	16.6	2.9	
14.5	61.7	0.8	
47.6	31.3	1.2	
53.2	21.7	1.3	
52.1	19.1	1.3	
68.2	11.7	1.4	
35.7	9.8	<1.0	
29.1	50.0	1.2	
34.5	52.6	3.5	
45.0	41.5	4.5	
62.3	21.6	7.4	

TABLE 21.--CLASSIFICATION OF THE SOILS

Soil name	Family or higher taxonomic class
Acadia	Fine, montmorillonitic, thermic Aeric Ochraqualfs
Alligator	Very-fine, montmorillonitic, acid, thermic Vertic Haplaquepts
Baldwin	Fine, montmorillonitic, thermic Vertic Ochraqualfs
Basile	Fine-silty, mixed, thermic Typic Glossaqualfs
Calhoun	Fine-silty, mixed, thermic Typic Glossaqualfs
Commerce	Fine-silty, mixed, nonacid, thermic Aeric Fluvaquents
Convent	Coarse-silty, mixed, nonacid, thermic Aeric Fluvaquents
Coteau	Fine-silty, mixed, thermic Glossaquic Hapludalfs
Crowley	Fine, montmorillonitic, thermic Typic Albaqualfs
Dundee	Fine-silty, mixed, thermic Aeric Ochraqualfs
Falaya	Coarse-silty, mixed, acid, thermic Aeric Fluvaquents
Fausse	Very-fine, montmorillonitic, nonacid, thermic Typic Fluvaquents
Frost	Fine-silty, mixed, thermic Typic Glossaqualfs
Frozard	Fine-silty, mixed, thermic Aeric Ochraqualfs
Gallion	Fine-silty, mixed, thermic Typic Hapludalfs
Iberia	Fine, montmorillonitic, thermic Vertic Haplaquolls
Jeanerette	Fine-silty, mixed, thermic Typic Argiaquolls
Judice	Fine, montmorillonitic, thermic Vertic Haplaquolls
Latanier	Clayey over loamy, mixed, thermic Vertic Hapludolls
Lebeau	Very-fine, montmorillonitic, thermic Aquentic Chromuderts
Loreauville	Fine-silty, mixed, thermic Udollic Ochraqualfs
Loring	Fine-silty, mixed, thermic Typic Fragiudalfs
Mamou	Fine-silty, siliceous, thermic Aeric Albaqualfs
Memphis	Fine-silty, mixed, thermic Typic Hapludalfs
Mowata	Fine, montmorillonitic, thermic Typic Glossaqualfs
Muskogee	Fine-silty, mixed, thermic Aquic Paleudalfs
Patoutville	Fine-silty, mixed, thermic Aeric Ochraqualfs
Perry	Very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts
Sharkey	Very-fine, montmorillonitic, nonacid, thermic Vertic Haplaquepts
Tensas	Fine, montmorillonitic, thermic Vertic Ochraqualfs
Vidrine	Coarse-silty over clayey, mixed, thermic Glossaquic Hapludalfs
Wrightsville	Fine, mixed, thermic Typic Glossaqualfs

TABLE 22.--RELATIONSHIPS OF PARENT MATERIAL, SLOPE, RUNOFF, NATURAL DRAINAGE, AND SEASONAL HIGH WATER TABLE AMONG THE SOILS OF ST. LANDRY PARISH

[The symbol > means more than. The symbol + indicates above the surface]

Parent material and soil series	Slope	Runoff	Natural drainage	Seasonal high water table	
				Depth	Duration
				Ft	Months
Loess:					
Calhoun	Level	Slow	Poorly drained	0-2.0	Dec-Apr
Coteau	Level and very gently sloping	Slow and Medium	Somewhat poorly drained	1.5-3.0	Dec-Apr
Frost	Level	Very slow	Poorly drained	0-1.5	Dec-Apr
Frozard	Level	Slow	Somewhat poorly drained	1.0-3.0	Dec-Apr
Jeanerette	Level	Slow	Somewhat poorly drained	1.0-2.5	Dec-Apr
Loring	Gently sloping to moderately steep	Medium and rapid	Moderately well drained	2.0-3.0	Dec-Mar
Memphis	Nearly level to moderately steep	Medium and rapid	Well drained	>6.0	None
Patoutville	Level and very gently sloping	Slow	Somewhat poorly drained	2.0-5.0	Dec-May
Local stream alluvium:					
Basile	Level	Very slow	Poorly drained	0-1.5	Dec-May
Falaya	Level	Slow	Somewhat poorly drained	1.0-2.0	Dec-Apr
Loamy and clayey sediments of the [illegible]:					
[illegible]					
Acadia	Very gently sloping	Slow	Somewhat poorly drained	0.5-1.5	Dec-Apr
Crowley	Level	Very slow	Somewhat poorly drained	0.5-1.5	Dec-Apr
Judice	Level	Very slow	Poorly drained	0-1.5	Dec-Apr
Mamou	Very gently sloping	Medium	Somewhat poorly drained	0.5-1.0	Dec-Apr
Mowata	Level	Very slow	Poorly drained	0-2.0	Dec-Apr
Muskogee	Strongly sloping	Rapid	Moderately well drained	1.0-2.0	Jan-Apr

TABLE 22.--RELATIONSHIPS OF PARENT MATERIAL, SLOPE, RUNOFF, NATURAL DRAINAGE, AND SEASONAL HIGH WATER TABLE AMONG THE SOILS OF ST. LANDRY PARISH--Continued

Parent material and soil series	Slope	Runoff	Natural drainage	Seasonal high water table	
				Depth	Duration
				Ft	Months
Atchafalaya River alluvium:					
Commerce	Level and gently undulating	Slow	Somewhat poorly drained	1.5-4.0	Dec-Apr
Convent	Level and gently undulating	Slow	Somewhat poorly drained	1.5-4.0	Dec-Apr
Mississippi River alluvium:					
Alligator	Level and gently undulating	Very slow	Poorly drained	0.5-2.0	Jan-Apr
Baldwin	Level and gently undulating	Slow	Poorly drained	0-2.0	Dec-Mar
Dundee	Level and gently undulating	Slow and Medium	Somewhat poorly drained	1.5-3.5	Jan-Apr
Fausse	Level	Very slow	Very poorly drained	+1.0-1.5	Jan-Dec
Iberia	Level	Very slow	Poorly drained	0-2.0	Dec-Apr
Loreauville	Level	Slow	Somewhat poorly drained	1.0-2.5	Dec-Apr
Sharkey	Level	Very slow	Poorly drained	0-2.0	Dec-Apr
Tensas	Gently undulating	Medium	Somewhat poorly drained	1.0-3.0	Dec-Apr
Red River alluvium:					
Gallion	Level and gently undulating	Slow	Well drained	>6.0	None
Latanier	Level	Slow	Somewhat poorly drained	1.0-3.0	Dec-Apr
Lebeau	Level	Very slow and slow	Poorly drained	0-1.5	Dec-Apr
Perry	Level	Very slow	Poorly drained	0-2.0	Dec-Apr

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